

BRITAIN'S BEST MILITARY HISTORY MAGAZINE

# HISTORY of WAR



**BLETCHLEY HEROINE**  
**CODEBREAKING VETERAN**  
**ON TURING'S LEGACY**

SS-WIKING ⚡ FLEMISH LEGION ⚡ SS-CHARLEMAGNE

## HITLER'S FOREIGN LEGIONS

Why did thousands of Europeans join Waffen-SS ranks to fight for the Third Reich?



## CENTURION

Inside the UK's Cold War battle tank



### BATTLE OF HAMBURGER HILL

Blow-by-blow account of Vietnam's most horrific battlefield



### IRELAND'S FORGOTTEN WWI GENERAL

How Edward Bulfin became Field Marshal Haig's 'tower of strength'



### TIMUR THE CONQUEROR

Inside his bloody quest to resurrect the Mongol Empire

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FUTURE  
ISSUE 064



**KING & COUNTRY'S**

# Hermann Graf's Bf.109 'G'

**SPECIAL • EDITION**

**LW063**

*Messerschmitt  
Bf.109 'Gustav'  
(1:30 scale)*

**LW065**

*Major Hermann Graf*

**Hermann Graf (1912-1988)** was one of the German Luftwaffe's top fighter aces of WW2. Flying on both the Eastern and Western Fronts he became the first aviator in history to 'score' 200 aerial victories.

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Keep your eyes peeled for this very special 1:30 scale, hand-painted Bf.109 'Gustav' which is due to be released this January 2019.

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*Each full color print measures 29 x 36.5 cm and was created for King & Country by Australian artist Ian Hill of 3D Battleart.*

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*With Berlin surrounded, battered and aflame in 1945, the Nazi capital was defended to the last by foreign members of the Waffen-SS*



Image: Getty

# Welcome

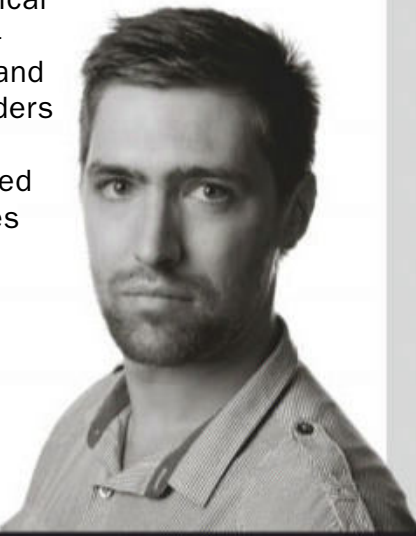
**I**n the final days of the Third Reich, with Berlin in flames, a few zealous defenders readied a final stand to defend the capital to the death.

However, what is most astonishing about this final sacrifice at the point of defeat is that many of these loyal soldiers were not even German.

By 1945 the ranks of the Waffen-SS were filled with recruits from across Europe and beyond. Men from several nations, many of which had been conquered by the Nazis, joined to

fight for Hitler. They may have signed up for a host of different political and ideological reasons, but many – such as the French and Scandinavian defenders in the final hours of Berlin – were prepared to lay down their lives for the Nazi cause.

**Tim Williamson**  
Editor-in-Chief



## CONTRIBUTORS

### TOM GARNER

Tom spoke with Bletchley Park veteran Ruth Bourne, who discusses her work with the famous Bombe machine – find the interview, which includes a beautiful illustration of the machine by artist Dawn Monks, starting on page 60.



### JONATHAN TRIGG

A former officer of the Royal Anglian Regiment, and before that a Sandhurst graduate, Jon is now a widely published authority on the history of the Waffen-SS. Turn to page 26 to find his feature on the foreigners who joined the Nazi ranks.



### MARC DESANTIS

Even in a war characterised by futile loss of life and intense, protracted jungle combat, the Battle for Hamburger Hill still manages to stand out. Turn to page 38 for Marc's blow-by-blow account of this infamous Vietnam clash.







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The corps boasts some very distinguished officers, talented architects and brilliant engineers

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A close-up photograph of the Bombe machine, showing rows of rotors and electrical components. The image is dark and has a historical, grainy quality.

# WOMEN OF BLETCHLEY

## PART I: THE BOMBE OPERATOR

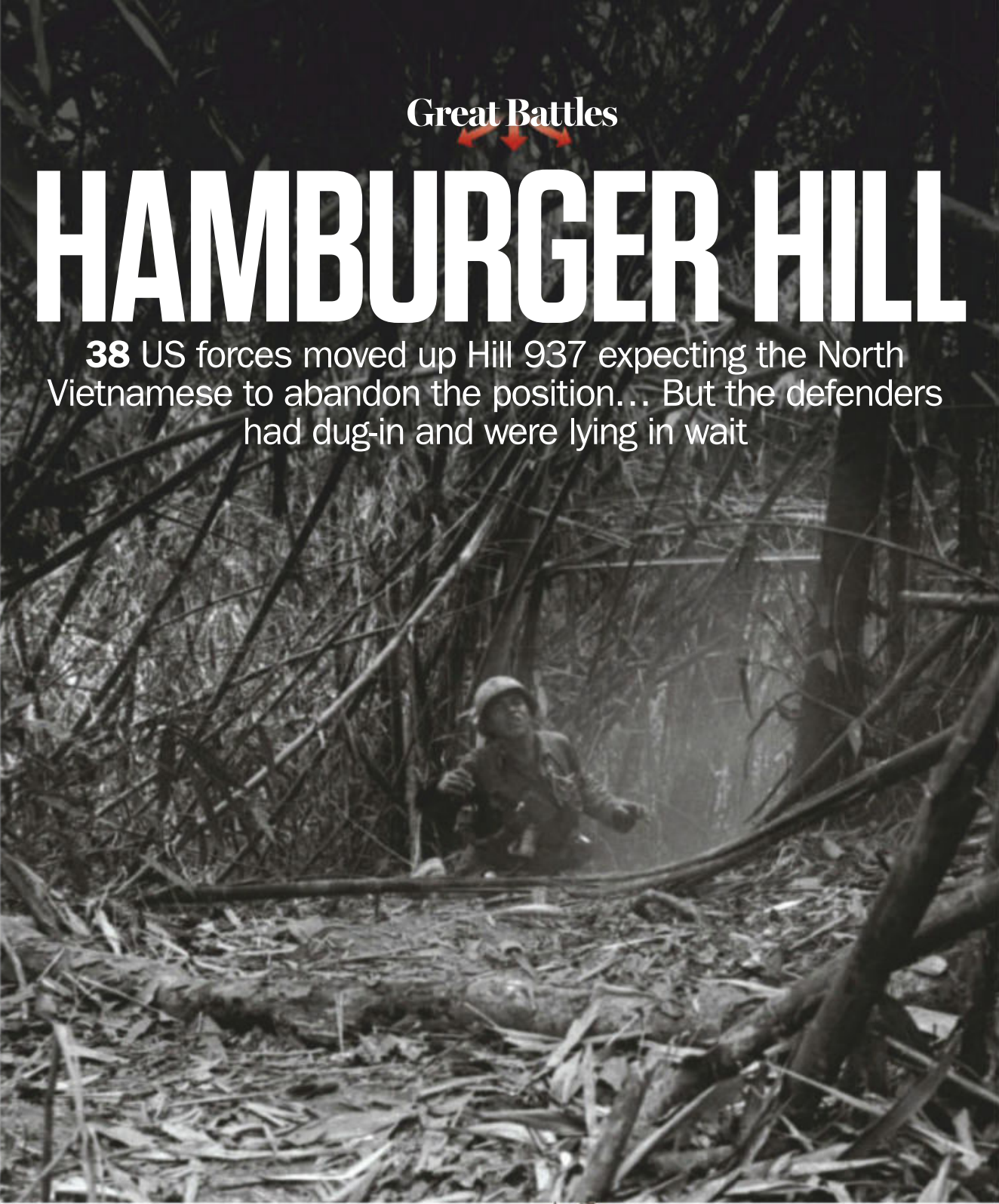
60 Ruth Bourne reveals how she operated Alan Turing and Gordon Welchman's codebreaking machine



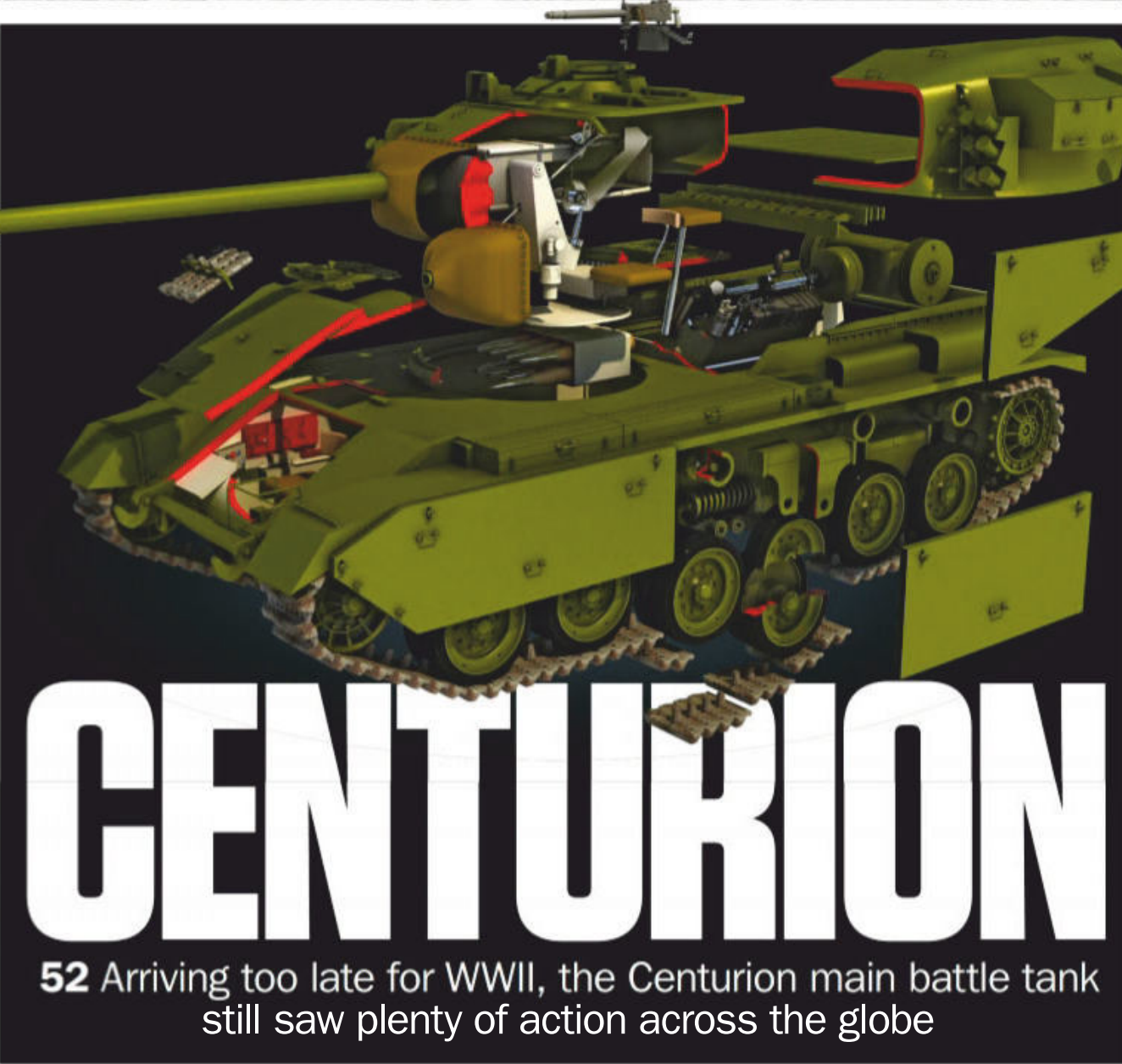
Great Battles

# HAMBURGER HILL

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The Third Reich was defended to the bitter end by volunteers from across Europe
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RAF Fighter Command received only one VC in WWII: it went to this brave Hurricane pilot



# CENTURION

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Coppergate helmet**  
A spectacular Anglo-Saxon headpiece





**WAR**<sub>in</sub>  
**FOCUS**  
**READY TO SAIL**

*Taken: c. 1917*

West Indian recruits pose for a photo after arriving for duty in the Royal Navy during WWI. As well as answering the empire's call to join the Royal Navy and Fleet Auxiliary, over 15,000 men from Barbados, Jamaica, Trinidad and other Caribbean islands volunteered to fight. The British West Indies Regiment fought in many of the bloodiest battles of the war.













# **WAR<sup>in</sup> FOCUS**

## **BLACK HAWK DROP**

*Taken: 19 June 2004*

Members of an American Quick Response Force (QRF) scan their surroundings after being dropped off by a Black Hawk helicopter, during a mission in Iraq. These quick reaction or response teams were on constant standby during US operations in the region, providing assistance and support to US or allied forces who found themselves in extreme danger.









# **WAR<sub>in</sub> FOCUS**

## **REINDEER RESISTANCE**

*Taken: c. 1942*

A soldier stands by his four-legged helpers in Lapland, Finland's northernmost region, during the Continuation War. In this theatre, Finnish and German forces fought against the Soviet invasion, although the resulting armistice saw the former allies pitched against each other, resulting in the Lapland War between September 1944 and April 1945.





# **WAR**<sub>in</sub> **FOCUS**

## **FROM THE FRONTLINE TO THE FRONT PAGE**

*Taken: 10 August 1992*

Author and journalist Anna Pukas is presented with a Browning machine gun while reporting on the frontline of the Bosnian War. UN forces intervened but were unable to prevent several war crimes and massacres being carried out by Bosnian Serbs on Bosnian Muslim civilians.







# TIMELINE OF THE...

# ROYAL ENGINEERS



Britain's sappers have been deployed, according to their Latin motto, 'Ubique' ('Everywhere') during 900 years of service



1066-1787

## ROYAL FOUNDATIONS

William the Conqueror introduces royally appointed military engineers to England from 1066. Henry V raises a permanent 'Office of Ordnance' that comprises artillerymen and officers in 1415, which later becomes the 'Corps of Engineers' in 1716. George III grants a warrant to the corps in 1787, which finally establishes the 'Royal Engineers'.

*Gundulf, Bishop of Rochester builds castles, including the White Tower at the Tower of London, for William the Conqueror and is regarded as the 'Father of the Royal Engineers'*



19th century

## CONSTRUCTIONS AND COLONIES

At the height of the British Empire, Royal Engineers design and construct significant engineering schemes around the world. These include much of India's colonial infrastructure, Dover's Western Heights, the Rideau Canal and the Royal Albert Hall. They even found British Columbia in Canada under the command of Lieutenant-Governor Richard Clement Moody.



*Left: Captain Francis Fowke and Major General Henry Scott design the Royal Albert Hall in the style of an ancient amphitheatre*

March 1875



*The Royal Engineers AFC team, including William Merriman (standing, first on left). Eight of these players participated in the first FA Cup final in March 1872*

## WINNING THE FA CUP

Royal Engineers AFC is one of the strongest sides in English football during the 1870s. The players are all officers and are captained by Captain William Merriman. They win the FA Cup final at the end of the fourth season after defeating the Old Etonians 2-0.

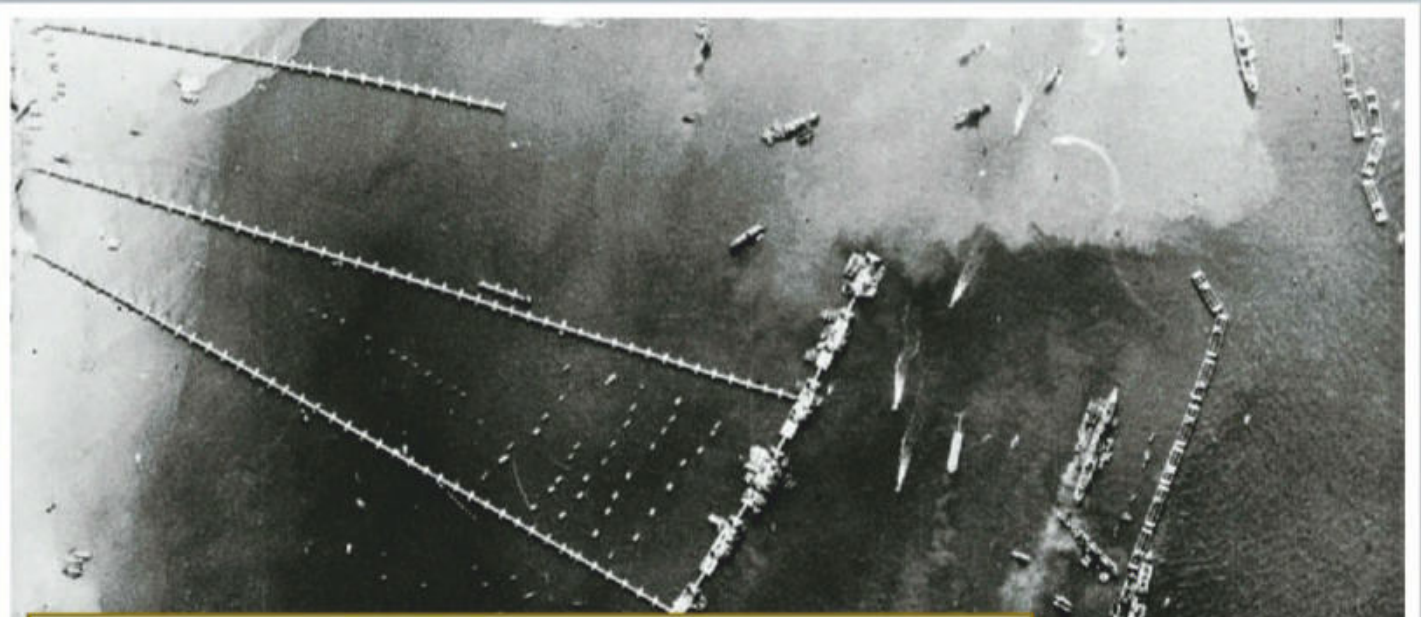


Chard and his batman are the only Royal Engineers present at Rorke's Drift, with most of the defenders belonging to the 24th (2nd Warwickshire) Regiment of Foot



## RORKE'S DRIFT

Lieutenant John Chard is awarded the Victoria Cross for successfully commanding a tiny British garrison against an overwhelming Zulu force at Rorke's Drift during the Anglo-Zulu War. Chard becomes the most famous Royal Engineer in the regiment's history.



## WORLD WAR II

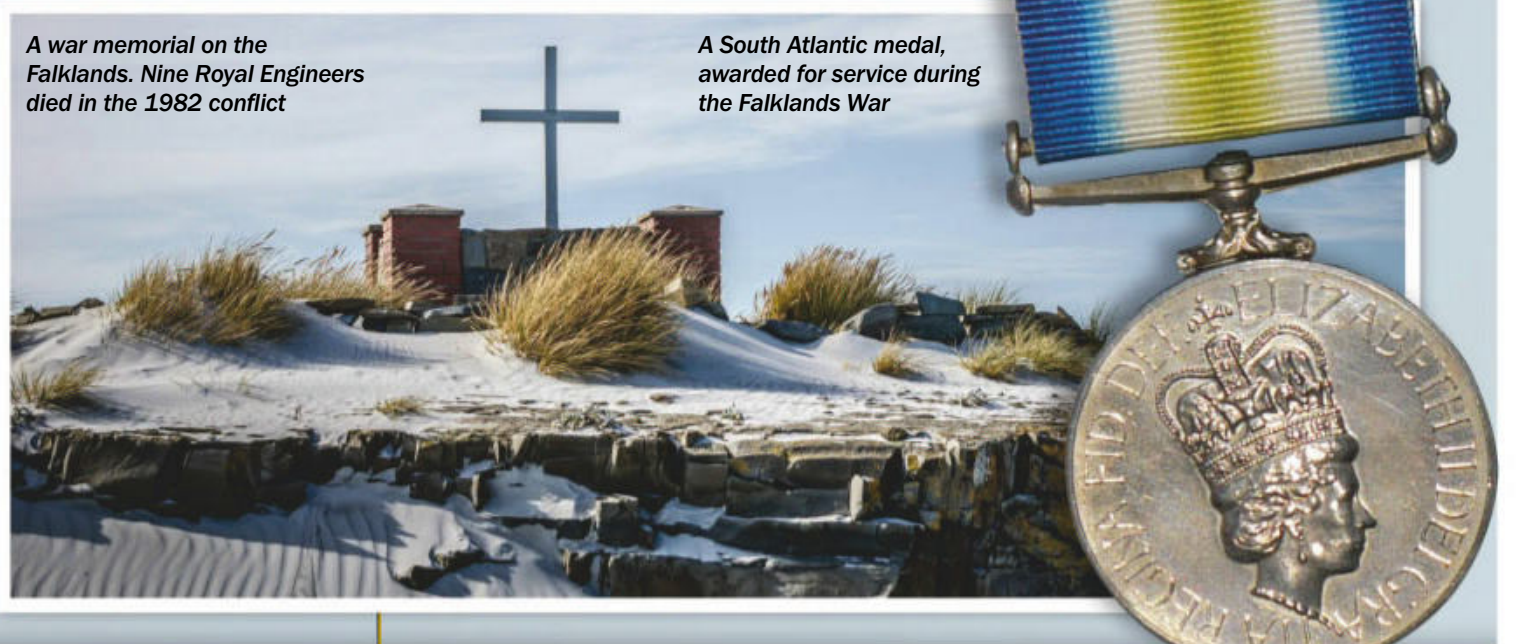
The regiment helps to develop bomb disposal techniques and leads the way in breaching enemy minefields. Sappers are also a key component of commando and airborne forces. The engineers' greatest military feats are the construction of the Mulberry Harbour during Operation Overlord and the success of Bailey bridges to cross rivers in Western Europe and the Far East.

A view of Mulberry B Harbour 'Port Winston' at Arromanches, September 1944. These portable harbours are constructed after D-Day so that armoured vehicles and heavy artillery can be landed

## FALKLANDS WAR

Paratroopers, commandos, bomb disposal specialists and field troops of the Royal Engineers all serve in 3 Commando Brigade during the war in the South Atlantic. Nine of their personnel are killed between May-June 1982.

A war memorial on the Falklands. Nine Royal Engineers died in the 1982 conflict



A South Atlantic medal, awarded for service during the Falklands War

22-23 January 1879

1914-18

1939-45

1982

1991-

## WORLD WAR I

Engineers play a vital role maintaining and constructing military infrastructure, particularly on the Western Front, where tunnelling companies fight an underground war. Earlier the regiment even forms an 'Air Battalion' of aircraft and balloons in 1911 that is the forerunner of the Royal Flying Corps and Royal Air Force.

Members of the Air Battalion, Royal Engineers prepare an inflated balloon for ascent with a female passenger



The Royal Engineers' Band assembles at the ExCel Exhibition Centre before performing at a fencing event at the 2012 London Olympics, 29 July 2012

## MODERN DEPLOYMENTS AND DUTIES

Royal Engineers serve during the Gulf War and conflicts in the Balkans, Iraq and Afghanistan. They perform 'Nation Building' activities in these regions but also work in Kenya and Nepal, where they are engaged in construction work. The engineers also construct temporary bridging following floods in northwest England and even provide support for the 2012 London Olympics.



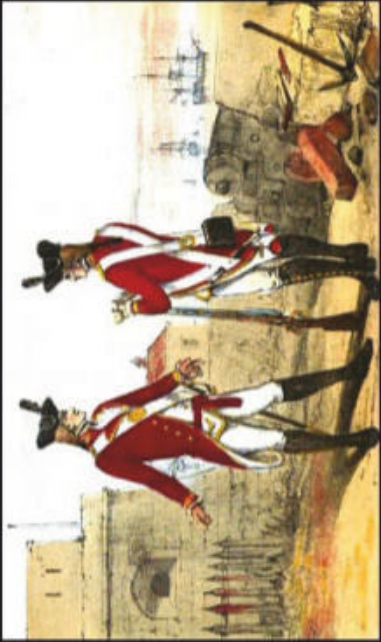
# PROJECTS, BATTLES AND OPERATIONS

Since its official formation in the 18th century, the Royal Engineers have embarked on military and civil engineering projects in Western Europe, as well as participating in bloody battles

## 1 GREAT SIEGE OF GIBRALTAR

**24 JUNE 1779-7 FEBRUARY 1783**  
**GIBRALTAR, IBERIAN PENINSULA**

Engineers of the Soldier Artificer Company dig a tunnel in the North Face of 'the Rock' in order to place cannon that can fire down on French and Spanish forces. The siege ends in a decisive British victory after three years and seven months.



Above: Engineers of the Soldier Artificer Company. Raised in Gibraltar, this unit is the first to use artificers and labourers, as opposed to the Corps of Engineers; this was entirely composed of commissioned officers

## 2 LINES OF TORRES VEDRAS

**1809-10** **TORRES VEDRAS, PORTUGAL**

Designed by Lieutenant Colonel Sir Richard Fletcher to defend Lisbon during the Peninsular War, the lines are a series of secretly constructed forts. Built by Portuguese workers but supervised by engineering officers, these ingenious defences halt Marshal André Masséna's French offensive of 1810.

## WADE'S ROADS

**1720s-30s**  
**SCOTTISH HIGHLANDS, SCOTLAND**

7

## 6 DUNKIRK

**IMPROVISED PIERS**  
**30 MAY 1940**  
**LA PANNE, NORD, FRANCE**

Sappers from the British 1st Division hastily construct piers at Bray-Dunes and La Panne to assist the evacuation of Allied forces from Dunkirk. They enable the civilian 'little ships' to continue the evacuation regardless of tides.

*This pier at La Panne is constructed out of abandoned army lorries and wooden decking*



## 7 FORT GEORGE

**1748-57**

**Ardersier, Moray Firth, Scotland**

After the Battle of Culloden in 1746, George II set about fortifying Scotland against any direct threats from Jacobite forces. Built over two decades, Fort George could not only defend access from the Moray Firth with its 80 artillery pieces, it could also house some 1,600 men. Lieutenant-General William Skinner designed and oversaw construction of the fort, which today is a museum and headquarters of the Black Watch, 3rd Battalion The Royal Regiment of Scotland.





**ROYAL ALBERT HALL**

**1867-71** SOUTH KENSINGTON, LONDON, ENGLAND

**PENTONVILLE PRISON**

**1842** BARNSBURY, LONDON, ENGLAND

**CHATHAM DOCKYARD**

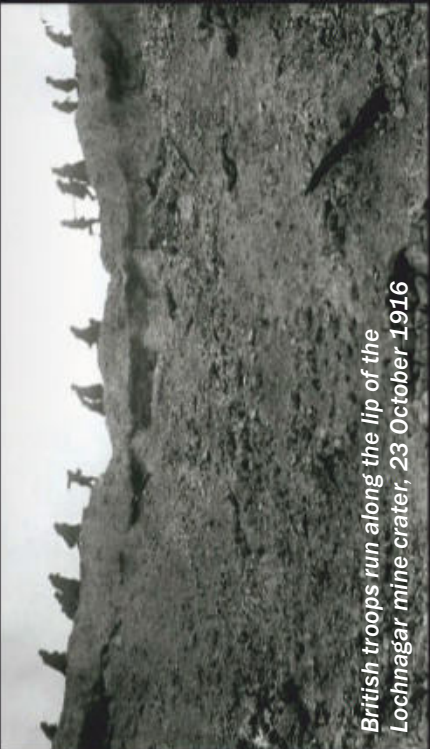
**1862-85** CHATHAM, KENT, ENGLAND

### 3 LOCHNAGAR MINE EXPLOSION

**1 JULY 1916**

**OVILLERS-LA-BOISSELLE, SOMME, FRANCE**

Tunnelling companies of the Royal Engineers place 27 tons of ammonal explosives in two chambers underneath a formidable German stronghold. On the first day of the Battle of the Somme, the mine is exploded at 7.28am, leaving a massive crater that is 21 metres (69 feet) deep and 100 metres (328 feet) wide. The crater's large size is due to the explosive chambers being overcharged, and debris is flung 1.6 kilometres (one mile) into the air.



*British troops run along the lip of the Lochnagar mine crater, 23 October 1916*

### 4 BATTLE OF MESSINES

**7-14 JUNE 1917** MESEN, WEST FLANDERS, BELGIUM

Underground explosive charges are detonated beneath the German Fourth Army lines. 19 large craters are created, and the joint explosions rank among the largest non-nuclear explosions of all time. General Sir Charles Harington remarks, "Gentlemen, we may not make history tomorrow, but we shall certainly change the geography."

### 5 WESTERN HEIGHTS OF DOVER

**1779-1898**

**DOVER, KENT, ENGLAND**

Plans to fortify the hills above Dover result in the construction of a formidable series of forts, redoubts and ditches over the next century. A 'Drop Redoubt' commands extensive views across the area, while the brick-lined ditches range between 9-15 metres (30-49 feet) in depth. The Western Heights are not fully abandoned by the British Army until 1961.

*Images: Free Vector Maps, Getty*

**MULBERRY HARBOUR**

**1944** NORMANDY, FRANCE

**GIVENCHY MINE EXPLOSION**

**10 AUGUST 1917**

**GIVENCHY-EN-GOHELLE, PAS-DE-CALAIS, FRANCE**

**HAWTHORN RIDGE REDOUBT MINE EXPLOSION**

**1 JULY 1916** BEAUMONT-HAMEL, SOMME, FRANCE

**BATTLE OF VIMY RIDGE**

**9-12 APRIL 1917**

**VIMY, PAS-DE-CALAIS, FRANCE**

**BATTLE OF ARRAS**

**9 APRIL-16 MAY 1917**

**ARRAS, PAS-DE-CALAIS, FRANCE**

**SECOND BATTLE OF PASSCHENDAELE**

**26 OCTOBER-10 NOVEMBER 1917**

**PASSCHENDAELE, WEST FLANDERS, BELGIUM**

**ACTIONS OF THE BLUFF**

**14-15 FEBRUARY, 2 MARCH 1916**

**SINT-ELOOI, WEST FLANDERS, BELGIUM**

**BATTLE OF HILL 60**

**17 APRIL-7 MAY 1915**

**YPRES, WEST FLANDERS, BELGIUM**

**TUNNELLING AT HOOGE**

**1915-18** HOOGE, WEST FLANDERS, BELGIUM

**BATTLE OF MONT SORREL**

**2-13 JUNE 1916**

**HOOGE & ZWARTELEEN, WEST FLANDERS, BELGIUM**

**"I COULD NEVER HAVE MAINTAINED THE SPEED AND TEMPO OF FORWARD MOVEMENT WITHOUT LARGE SUPPLIES OF BAILEY BRIDGING"**

– Field Marshal Bernard Montgomery



### 8 BAILEY BRIDGES

**1944-45**

**RIVERS RHINE, MAAS & ELBE, NETHERLANDS AND GERMANY**

Royal Engineers build portable, pre-fabricated 'Bailey' bridges across key rivers to aid the Allied advance into Germany. Field Marshal Bernard Montgomery later writes, "I could never have maintained the speed and tempo of forward movement without large supplies of Bailey Bridging."

A Bailey bridge is constructed over the Rhine River during the Allied advance across northwest Europe



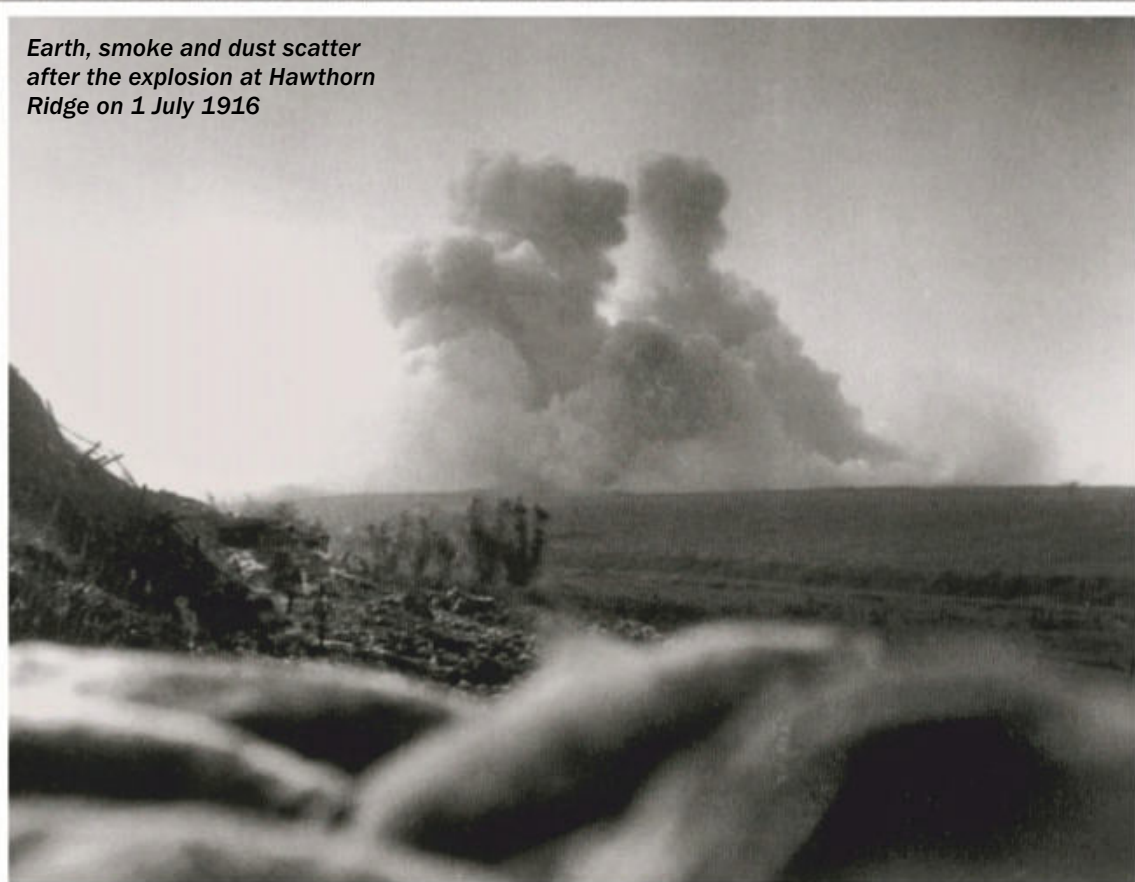
Frontline

FAMOUS BATTLE

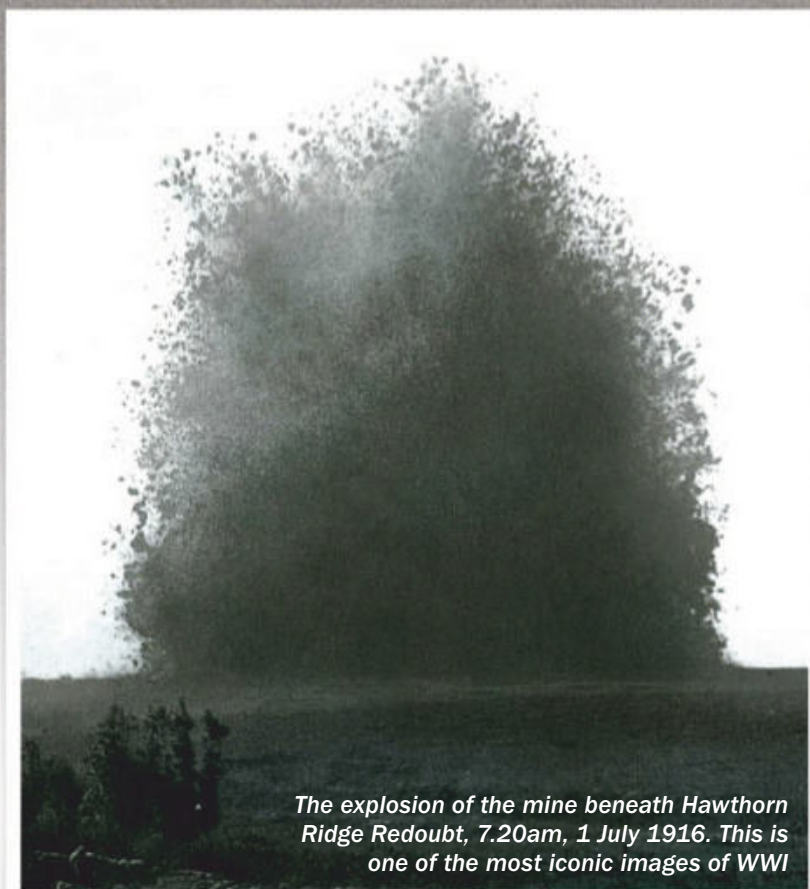
# HAWTHORN RIDGE 1916

Tunnellers of the Royal Engineers were responsible for the most famous explosion of WWI on the first day of the Somme

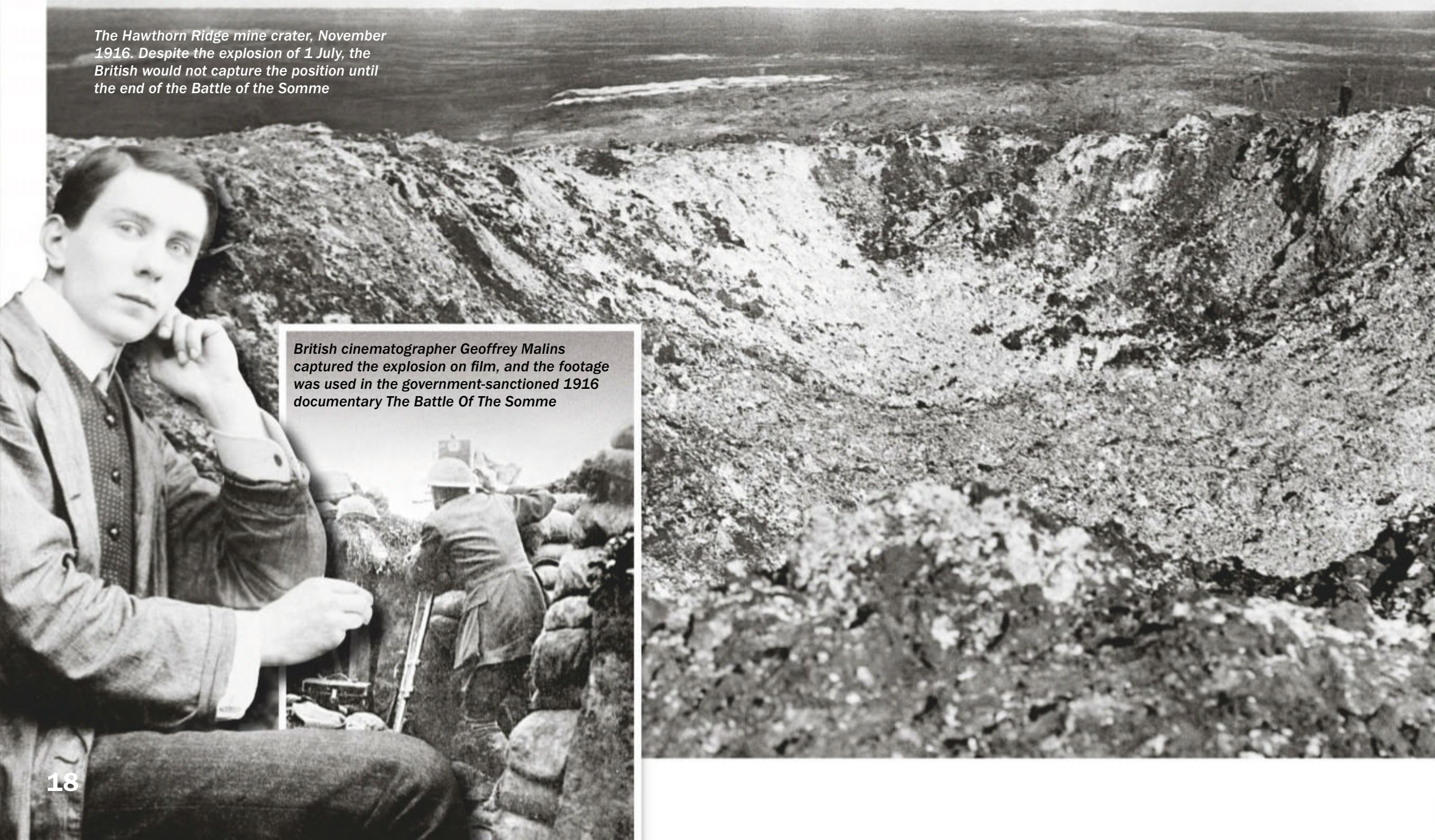
*Earth, smoke and dust scatter after the explosion at Hawthorn Ridge on 1 July 1916*



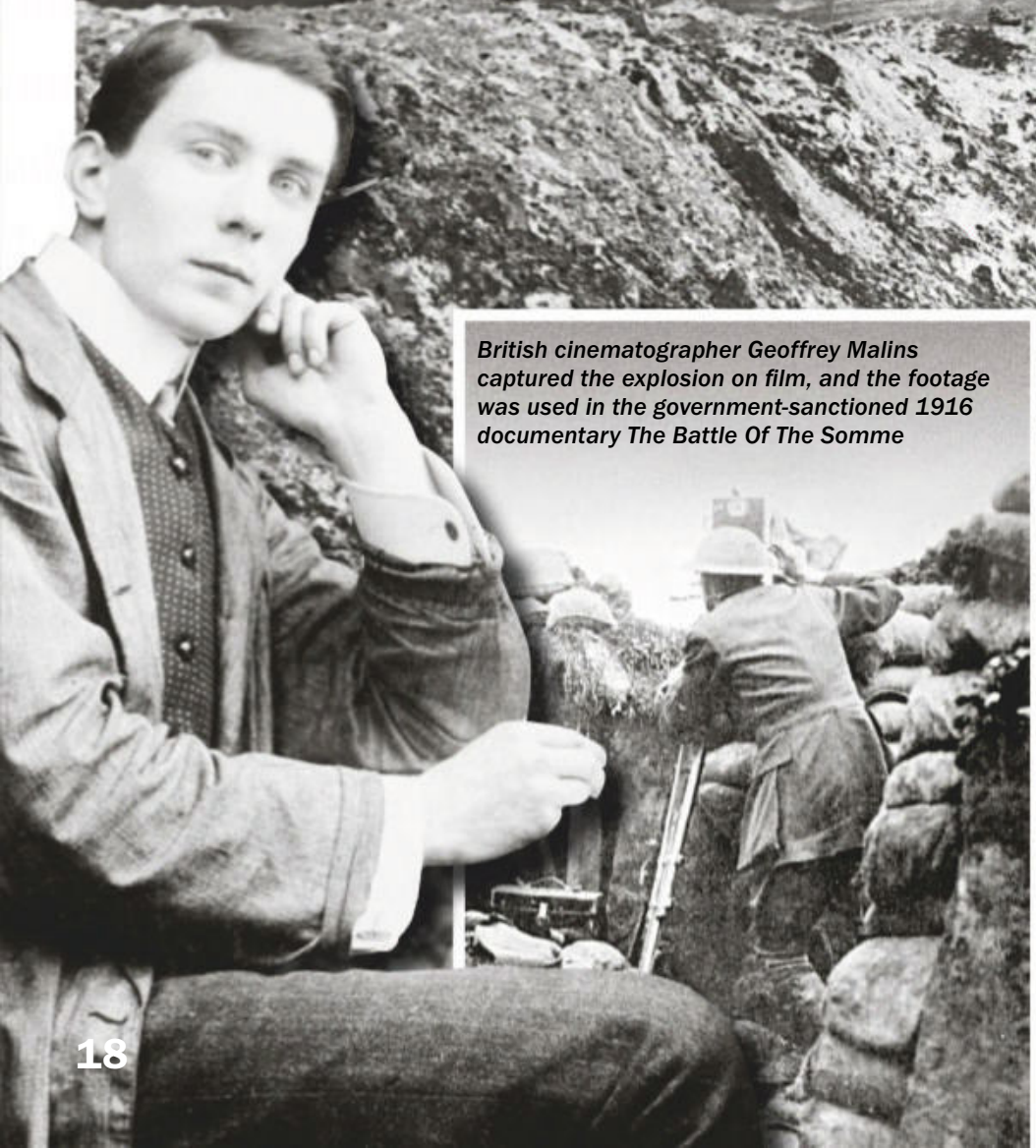
*The explosion of the mine beneath Hawthorn Ridge Redoubt, 7.20am, 1 July 1916. This is one of the most iconic images of WWI*



*The Hawthorn Ridge mine crater, November 1916. Despite the explosion of 1 July, the British would not capture the position until the end of the Battle of the Somme*



*British cinematographer Geoffrey Malins captured the explosion on film, and the footage was used in the government-sanctioned 1916 documentary *The Battle Of The Somme**





**W**orld War I tested the skill of the Royal Engineers as the reality of industrialised conflict demanded their expertise. Both sides faced the need to break through the enemy's defensive entrenched positions, and it was into this situation of military stalemate that the RE came into its own.

Mining operations underneath enemy positions was a practice that dated back to ancient times, but it developed rapidly during WWI. The pre-war British Army did not consider underground warfare to be a serious possibility, but the Royal Engineers still received a small amount of training in sapping, mining and tunnelling operations. Nevertheless, on 20 December 1914 German sappers blew ten small mines underneath British positions at Givenchy, which resulted in the loss of over 800 men of the Indian Corps. In response to the incident, 'Brigade Mining Sections' of the RE were formed, and the first British mine was blown at Hill 60 on 17 February 1915.

After this operation, 'Tunnelling Companies' were created from experienced rankers and specially drafted men. They became a crucial element of Allied tactical superiority to destroy enemy positions with mines. The craters caused by offensive mine explosions also became a regular feature of local actions in 1915-16. Infantrymen were trained to rush and capture newly exploded craters, because they were dominant ground features that allowed new observations of the enemy from the blown-up ground. It was in this context that the famous mine at Hawthorn Ridge was detonated on 1 July 1916.

### **"A mighty convulsion"**

Hawthorn Ridge was part of a heavily defended German frontline redoubt west of Beaumont Hamel. As part of the preparations for the upcoming Battle of the Somme, it was decided that the ridge would be the target of one of ten mines that would be dug along the front as part of the opening offensive. The redoubt was the most northern target, and the task for placing the explosives was given to the 252nd Tunnelling Company.

The 252nd built several tunnels, including a gallery 17 metres (56 feet) underground that stretched 910 metres (2,985 feet) to beneath the redoubt. The mine itself, known as 'H3', was 18 tons of ammonal explosives, and it was to be detonated in sync with the other mines two minutes before the infantry attack at 'Zero Hour' on 1 July.

At 7.20am on the first day of the Somme, the mine was fired. Geoffrey Malins, the War Office's official cameraman, famously caught the explosion on film and later wrote of what he saw: "The ground where I stood gave a mighty convulsion. It rocked and swayed. I gripped hold of my tripod to steady myself. Then for all the world like a gigantic sponge, the earth rose high in the air to the height of hundreds of feet. Higher and higher it rose, and with a horrible grinding roar the earth settled back upon itself, leaving in its place a mountain of smoke."

The crater produced from the explosion was 140 metres (460 feet) long, 90 metres (295 feet) wide and 25 metres (82 feet) deep.

Nevertheless, despite the dramatic detonation, the British plan immediately went awry. The mine had been fired eight minutes before time, instead of the planned two minutes, which gave the Germans an advantage. After eight days of a heavy preliminary bombardment, they knew an attack was coming and had settled into deep bunkers.

## **"THE COSTLY FAILURE AT HAWTHORN RIDGE WAS ONLY ONE INCIDENT OF WHAT BECAME THE BRITISH ARMY'S BLOODIEST DAY, WHERE THE FOURTH ARMY SUFFERED 57,470 CASUALTIES"**

When the mine was detonated, two platoons of 2nd Battalion, Royal Fusiliers rushed the crater and managed to secure the near side. However, the Germans had been given several minutes of respite and managed to retain the far side. Meanwhile, their comrades in what remained of the redoubt emerged from bunkers and took up positions against the British. The crater only served to protect the fusiliers who captured their part of the crater, while the rest of the battalion was wiped out by machine gun and artillery fire. The British attack crumbled and 561 fusiliers became casualties.

The costly failure at Hawthorn Ridge was only one incident of what became the British Army's bloodiest day, where the Fourth Army suffered 57,470 casualties. The mining skills of the 252nd Tunnelling Company were not in doubt, but their hard work was let down by poor decisions and bad timing. Nevertheless, the explosion was captured for posterity, and the footage has come to define the apocalyptic reality of fighting on the Western Front.

## **TUNNELLING COMPANIES**

### **THE SAPPERS WERE EXPERIENCED PROFESSIONALS WHO WORKED IN HORRENDOUS CONDITIONS TO PRODUCE EXPLOSIVE RESULTS**

From February 1915, civilian miners were recruited into the Royal Engineers' newly founded Tunnelling Companies. These men were tough and resourceful, with many having experience of mining since childhood, but they had often been initially rejected by the British Army on grounds of health or age. They were now put to frontline underground work within days of recruitment. The tunnelling companies were then expanded to include Australian, Canadian and New Zealand units by 1916.

Their work included digging subways, cable trenches, chambers and both defensive and offensive mining. Miners worked in constant fear of sudden death from carbon monoxide poisoning, collapsing tunnels, the abrupt explosions of pre-set mines or encountering the enemy underground. Nevertheless, the tunnellers gradually gained an advantage over their German counterparts and reached their zenith of achievement at the Battle of Messines.

During the battle, 20,000 tunnellers dug 22 tunnels and laid 435 tons of explosives, which were blown up in 19 mines along the Messines Ridge on 7 June 1917. Following the blasts, the British took only three hours to capture enemy positions, and the Germans suffered casualties of 10,000 missing personnel and 7,000 captured. The explosions are said to have registered on a seismograph in Switzerland and been heard by Prime Minister David Lloyd George 240 kilometres (150 miles) away in London.

*Below: A German trench destroyed by a mine at the Battle of Messines. Four visible bodies are surrounded by churned-up mud and splintered wood*





Frontline

# OIL-DENIAL

The oilfields of Saudi Arabia were almost within Germany's grasp when the Royal Engineers stepped in with a daring and controversial plan

**"IN REALITY, HE WOULD BE  
SELECTING CASOC EMPLOYEES - ALL  
CIVILIANS - FOR TRAINING IN HOW TO  
DESTROY OR TEMPORARILY DISABLE  
THEIR OWN OIL INSTALLATIONS"**



*The Saudi oilfields of 1942 were modest in scale by today's standards, but still of crucial importance*

**I**n times of war, the Royal Engineers often had to be as concerned with destroying things as with building them. This was most certainly the case with the oilfields of the Middle East.

As WWII raged into the summer of 1942, German forces were getting uncomfortably close to the oilfields and refineries in Egypt and Saudi Arabia, as well as those further afield in Bahrain, Iran and Iraq. Production in the Middle East was not at the levels that are seen today (only about six per cent of the world's oil came from the region), but it was still a vitally important resource.

Contingency plans were therefore needed to both protect the installations and also destroy them if necessary. This was relatively simple in most of the regions involved – Britain had troops in Iran, Iraq, Egypt and Bahrain. Saudi Arabia, however, was a neutral country and deeply suspicious of British interests in the region. The vision of the Saudi oil reserves falling into the hands of the Axis powers was a deeply disconcerting one.

Saudi Arabian oilfields had a capacity of at least 100,000 barrels a day (twice as much might have been possible if needed). King Ibn Saud had granted rights to the California Arabian Standard Oil Company (CASOC) in 1933, and this company now faced the question of how to defend the oil infrastructure.

An Italian bombing raid had demonstrated the vulnerability of the oilfields in October 1940, so anti-aircraft capability seemed to be essential. CASOC therefore requested troops and anti-aircraft guns from the US government. The request was turned down, because the US saw the Middle East as Britain's area of responsibility, and as German forces advanced ever nearer, the oilfields remained unprotected.

Britain had contingency plans for 'oil-denial' campaigns throughout the Middle East and had already enacted them in certain areas of Iraq and Iran, plugging wells with concrete (further experience of such techniques was gained in Burma when denying oil reserves to the Japanese). The question of what to do with Saudi Arabia, however, was a major one. There were no British troops in the country and

no British civilians working in the oil industry there. In an attempt to surreptitiously prepare an oil-denial campaign for Saudi Arabia, Captain C.S.C. Bale of the Royal Engineers was dispatched to visit Dhahran. He was instructed to keep the true purpose of his visit secret and would wear civilian clothing. If questioned, he was to merely say that he was advising CASOC staff on passive air-defence techniques. In reality, he would be selecting CASOC employees – all civilians – for training in how to destroy or temporarily disable their own oil installations. The selected employees would be taken to Bahrain, where British engineers would instruct them on demolition techniques.

Planners estimated that a well-run operation could put the fields out of operation for at least eight months, while the important refinery at Ras Tanura could be disabled for even longer.

It was a decidedly murky mission. Bale would be travelling in disguise and advising civilians on how to sabotage the installations of a neutral country. He estimated that he would need four to six days to complete his mission, and he also advised that any civilians enrolled in the plan should temporarily join either the British or American armed forces. If they remained as civilians and were then captured by the Germans, they would almost certainly be executed.

Bale's daring mission, however, never took place. CASOC officials doubted the motives of the British and feared the response from King Ibn Saud if the plot were uncovered. They refused permission for Bale to visit and went further – denying access to any British officers under any circumstances.

The Americans were not blind to the danger and went on to plug 22 of their Saudi wells themselves (it cost \$15,000 to plug a well, and it would cost a further \$25,000 to reopen it), leaving just six in operation for a production capacity of 35,000 barrels a day. All other infrastructure, however, was left intact.

Following victory at the Battle of El Alamein in November 1942, the concern surrounding Saudi Arabia's oil installations receded, but events might have played out very differently if the tide of war had not turned.



*The Saudi King Ibn Saud meets Franklin Roosevelt in 1945, as the war draws to a successful conclusion*

Image: Getty

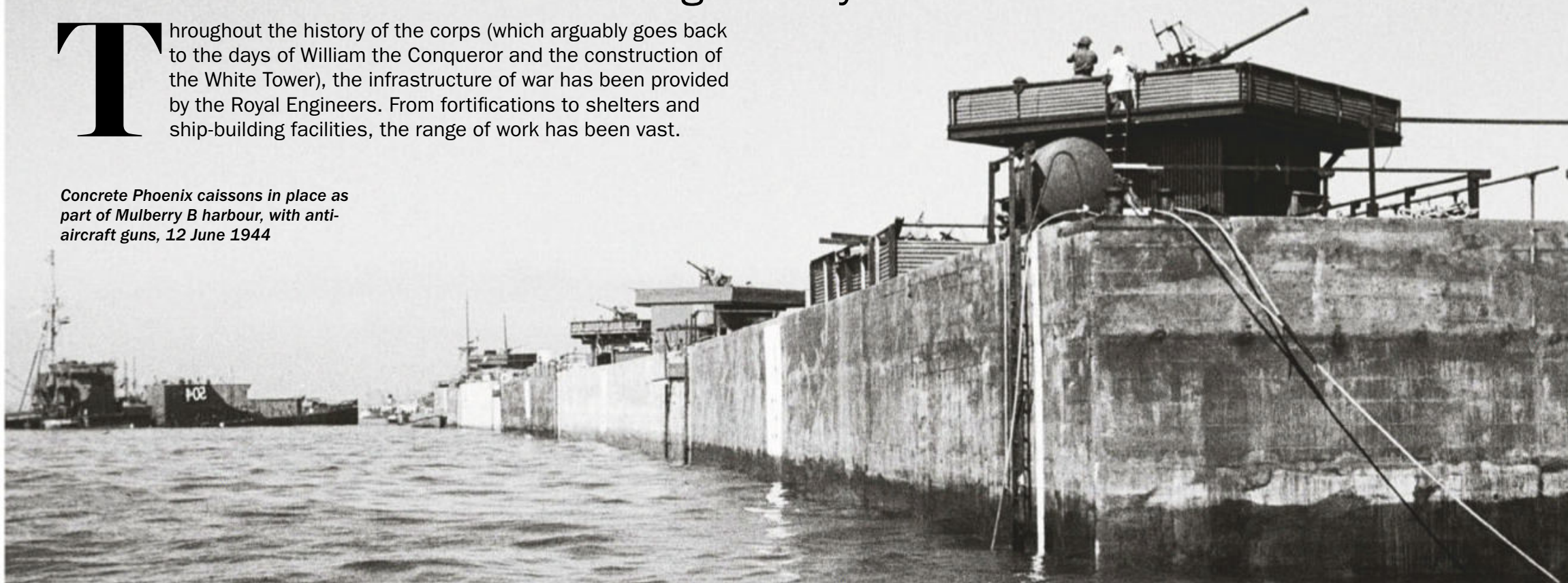


# MILITARY CONSTRUCTION

The Royal Engineers have been involved with the design, building and maintenance of a huge variety of installations

**T**hroughout the history of the corps (which arguably goes back to the days of William the Conqueror and the construction of the White Tower), the infrastructure of war has been provided by the Royal Engineers. From fortifications to shelters and ship-building facilities, the range of work has been vast.

Concrete Phoenix caissons in place as part of Mulberry B harbour, with anti-aircraft guns, 12 June 1944



## MULBERRY HARBOUR 1944

NEEDING FACILITIES TO LAND MEN AND MATERIEL AFTER D-DAY, THE ALLIES DECIDED TO BUILD THEM FROM SCRATCH

Landing troops on the beaches at Normandy was only the first challenge to be overcome by the Allies during the invasion of France in 1944. Supplying and reinforcing the invading armies was a huge logistical task, and the rapid capture of French ports could not be relied upon. The construction of enormous temporary harbours was the answer to the problem, and the twin harbours (Mulberry A and Mulberry B) provided the vital lifeline to the invasion forces until a conventional port could be captured.

Mulberry B, secured in place at Gold beach by men of the Royal Engineers, survived a severe storm on 19 June (although it was damaged), while the American-installed Mulberry A at Omaha beach was destroyed. The Royal Engineers had anchored each section of the prefabricated harbour to the sea floor for added stability, which may have made a difference. Parts of the American harbour were cannibalised to repair Mulberry B.

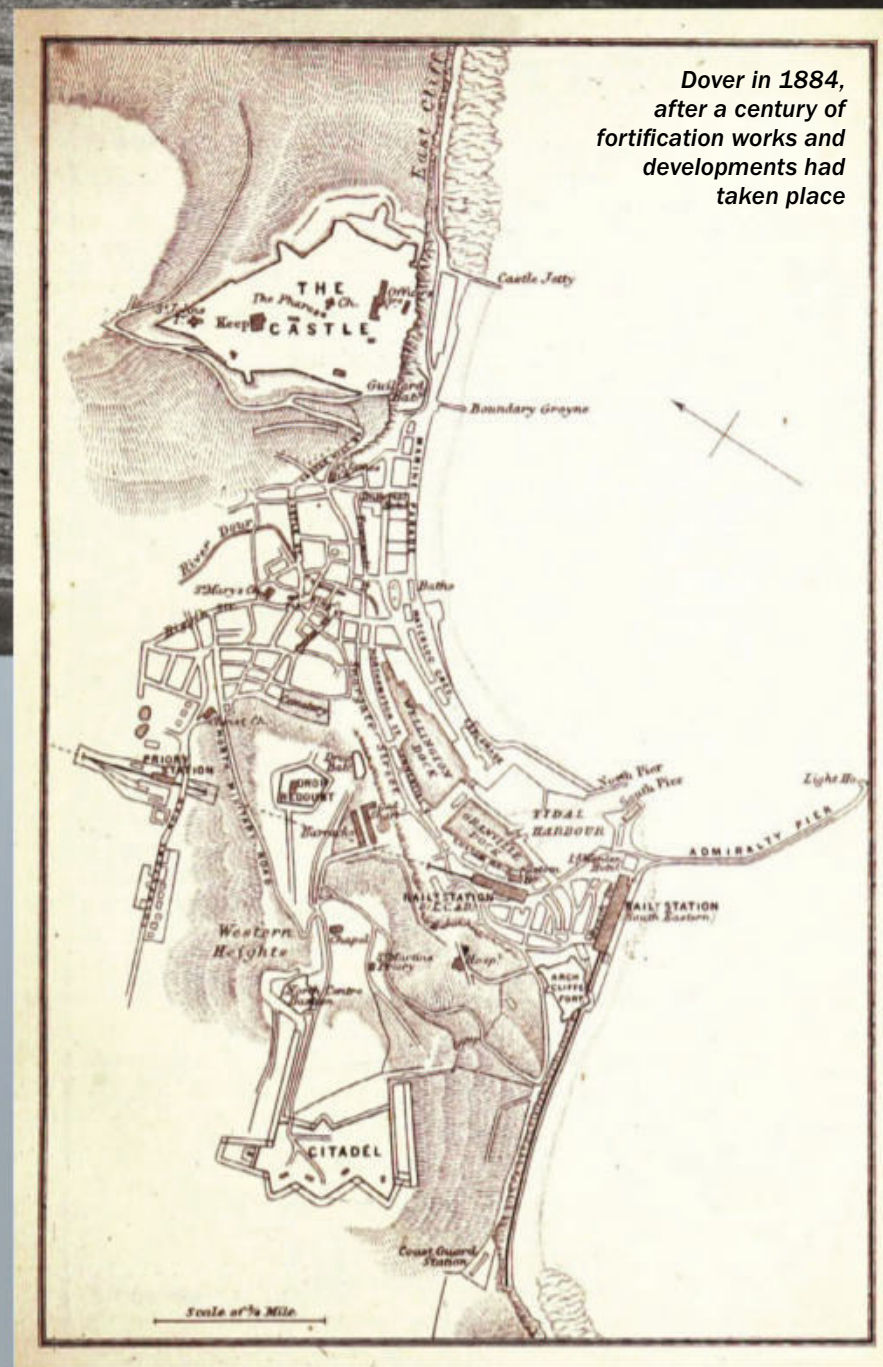
## WESTERN HEIGHTS OF DOVER 1779-1898

FEAR OF INVASION BY FRANCE WAS A SPUR FOR THE DEVELOPMENT OF A FORMIDABLE RANGE OF FORTIFICATIONS IN THE 18TH AND 19TH CENTURIES

The threat of invasion by France was almost ever-present during the 18th and early 19th centuries, and it reached a crescendo during the Napoleonic Wars. The castle at Dover was considered insufficient to deter the French, so extensive new works were constructed under the guidance of Lieutenant-Colonel William Twiss of the Royal Engineers. Twiss had already upgraded the castle itself, and some further fortifications had been in place since as early as 1779. Concentrating on two forts, the Citadel and the Drop

Redoubt, the new defences included linking earthworks.

Despite the fear of invasion being justified, work progressed slowly on the fortifications, and they were barely complete by the time the Napoleonic Wars ended. Further scares throughout the 19th century continued to prompt new additions and strengthening of existing positions. The British Army used the structures at Dover until the middle of the 20th century, and they formed part of Britain's coastal defences during World War II.



Dover in 1884, after a century of fortification works and developments had taken place





Portsmouth Dockyard pictured in 1970. The Royal Engineers played a role in the construction of dockyard facilities and defences across the world

## 1496- 20TH CENTURY

### HM DOCKYARDS

TO PROTECT TRADE ROUTES AND OVERSEAS POSSESSIONS, BRITAIN NEEDED A HUGE NETWORK OF NAVAL FACILITIES AROUND THE WORLD

A maritime empire such as that built up by Great Britain demanded the support of dockyards around the globe, and such installations proliferated as Britain acquired new overseas territories. Dockyards could be used for the construction of new ships as well as the refitting of existing vessels, and they often required defensive works to protect them from enemy activity.

The Royal Engineers played their part in the construction and maintenance of these facilities, especially after the appointment of Captain Henry Brandreth to the position of director of the Department of Architecture and Civil Engineering, which became the Admiralty's Works Department. Smaller naval bases, for the revictualling of ships, were also established in a web around the world's oceans, including on the 'stone frigate' of Ascension Island, the defences of which were planned and installed by Brandreth in 1830.

## WWI DUGOUTS 1914-18

SURVIVAL DURING THE GREAT WAR WAS OFTEN A CASE OF GETTING AS FAR UNDERGROUND AS POSSIBLE

The Royal Engineers created hundreds of dugouts to grant respite to the troops on the Western Front. Temporary in nature, most have collapsed or filled with water, making exploration almost impossible in most cases. Some, such as the 'Vampire dugout' featured on *Time Team*, have survived enough for inspection. Railway tracks and beams were used as supports for many of

the dugouts, which were situated at varying depths (the Vampire dugout is 15 metres [50 feet] below ground) and could hold varying numbers of men.

Constructed by the 171st Tunnelling Company, the Vampire dugout was designed to act as a brigade headquarters, but dugouts also served as hospitals, churches and workshops.

Royal Engineers construct a trench line in Flanders, 1916



## THE JERSEY ROUND TOWERS 1778-1801

FRENCH INVASION FEARS PROMPTED THE CONSTRUCTION OF A STRING OF TOWERS AROUND THE COAST OF JERSEY

Following France's entry into the American War of Independence in 1778, another invasion scare brewed in Britain, and the island of Jersey considered itself especially vulnerable. The governor, General Conway, suggested a string of fortified towers along the entire coastline of the island, and 23 were built between 1778 and 1801 (an actual invasion by French troops in 1781 proved the necessity of strong defences, although it had been on a tiny scale and was easily repulsed).

Captain Frederick Bassett of the Royal Engineers supervised the construction of the towers, which were officially pre-Martello towers but unofficially known as the Jersey Round Towers. All but one of the 11-metre (36-feet) high constructions were round and all were designed to house musket-wielding troops – there were 11 loopholes on the first floor wall and 12 on the second. Plans for a one or two-pound 'amulette' to be mounted on the roof of each tower do not seem to have ever been implemented.

One of the round towers dotted along the Jersey coast to defend against French invasion



Image: Alamy, Getty



# LEADERS & COMMANDERS

In both war and peacetime, officers of the Royal Engineers have distinguished themselves around the globe

## JOHN ROUSE MERRIOTT CHARD THE HERO OF RORKE'S DRIFT 1847-1897

Officers of the Royal Engineers are not usually expected to take on combat duties, but Lieutenant John Chard had no choice when his isolated post at Rorke's Drift came under attack from thousands of warriors during the Anglo-Zulu War. Immortalised in the film *Zulu*, Chard is probably the most famous Royal Engineer in history, as he led his tiny garrison in a successful defence of the post against monumental odds.

Commissioned into the Royal Engineers in 1868, he worked on the dockyards in Bermuda and the naval defences at Malta before he

was sent to Natal Province, South Africa, as part of the 5th Company Royal Engineers. His performance at Rorke's Drift (he was only 31 years old at the time, with no battle experience) was a surprise to many, including a superior officer who noted that he was "a most amiable fellow" but also "hopelessly slow and slack". These deficiencies did not prevent him from winning a Victoria Cross and earning a promotion to the rank of captain. He finished his career as the commanding Royal Engineer at Perth, in Scotland, with a rank of colonel.

Chard is the moustached officer pointing in the centre of the painting



This Webley RIC revolver belonged to Chard and is now on display at the Royal Engineers Museum in Kent



As well as his combat experience, Graham also served as commanding engineer at several posts, including Aldershot and Chatham

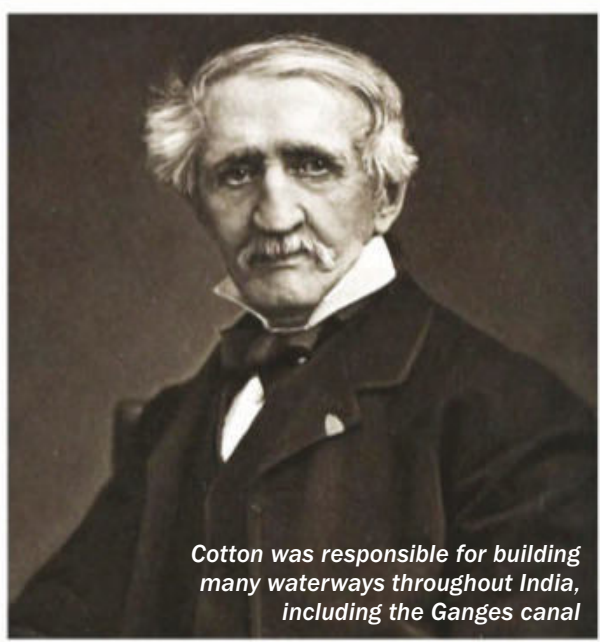
## GERALD GRAHAM THE FIGHTING ENGINEER 1831-1899

While John Chard had little choice over whether or not to take part in the fighting at Rorke's Drift, Gerald Graham was more active when it came to combat. In fact, he commanded sizeable forces in battle and also won a Victoria Cross for gallantry. After studying at the Woolwich Royal Military Academy and the School of Military Engineering, he entered the Corps of Royal Engineers and took part in the Crimean War.

During the siege of Sevastopol, he won his VC while storming a redan and repeatedly leaving the safety of the trenches to rescue wounded men. He was injured again during the storming of the Taku Forts in the Second Opium War and later served in Egypt as a brigadier general. In 1884 he led a force of nearly 5,000 men in battle against Osman Digna, defeating him at El-Teb and Tamai, with machine guns playing a prominent role in the victories.

**"HE WON HIS VC WHILE STORMING A REDAN AND REPEATEDLY LEAVING THE SAFETY OF THE TRENCHES TO RESCUE WOUNDED MEN"**

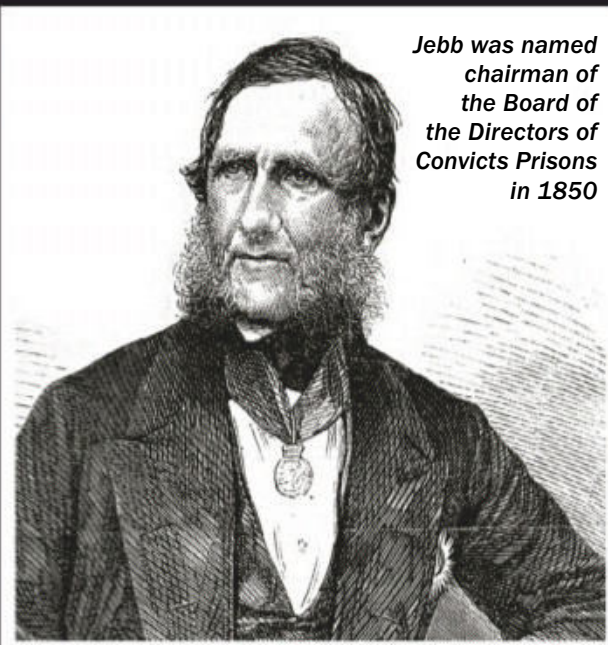




*Cotton was responsible for building many waterways throughout India, including the Ganges canal*

## ARTHUR THOMAS COTTON PROLIFIC BUILDER OF CANALS AND DAMS 1803–1899

As one of 11 brothers, Arthur Cotton had to fight to distinguish himself, but he made a good start with the East India Company military school and the Ordnance Survey. He worked under the chief engineer at Madras and specialised in building dams and canals. In contrast to many British officers in India, Cotton had a love of the native people and worked tirelessly to improve their lives, devising plans for irrigation and drought relief. The 'Anicut' dam on the Godavari River was his crowning glory, described by the author John Henry Morris as "perhaps the noblest feat of engineering skill which has yet been accomplished in British India... the District owes this invaluable boon to the genius of Sir Arthur Cotton".



*Jebb was named chairman of the Board of the Directors of Convicts Prisons in 1850*

## JOSHUA JEBB MILITARY ENGINEER AND PRISON REFORMER 1793–1863

Joshua Jebb joined the Royal Engineers in 1812 and took part in the Battle of Plattsburgh in 1814 (a naval battle on Lake Champlain during the War of 1812). After the war he remained in Canada, working on a canal (his proposed route was not used) and later served in the West Indies. Jebb is best known for his work in the field of prison reform, in which role he helped to design buildings at Pentonville and Portland, intended to serve as models for new prisons. He never lost his taste for military engineering and was published on subjects including siege warfare, the defence of military posts and the defences of London.

## HUGH JAMIESON ELLES FIRST COMMANDER OF THE TANK CORPS 1880–1945

Hugh Elles was not only the first commander of the Tank Corps during World War I, he is even credited with designing the corps flag (it was stitched together by his wife). Having been born in India, he came to Britain to study, attending the Royal Military Academy at Woolwich and joining the Royal Engineers in 1899. He served during the Second Boer War but is most famous for his contribution during World War I. Ordered by Sir Douglas Haig to report on the effectiveness of the newly designed tanks, Elles recommended that they be used in massed formations, and he got his wish at the Battle of Cambrai, where he commanded a force of 350 tanks.

*Elles continued in command of the Tank Corps until the end of World War I, and won medals including the Distinguished Service Order*



## ROBERT MURDOCH SMITH INDEFATIGABLE WORKER ON THE INDIA-TO-BRITAIN TELEGRAPH LINE 1835–1900

Robert Murdoch Smith enjoyed a long and colourful career in the Royal Engineers. First commissioned in 1855 as a lieutenant, he rose through the ranks and was a major general by the time he retired. His chief accomplishment was in constructing and then maintaining the Persian section of the India-to-Britain telegraph line (he was given the task in 1863), working for 20 years against all manner of obstructions and interference. A report on the progress of the line noted that he had worked "with the most untiring patience and unconquerable determination". A passionate archaeologist and art historian, he also excavated at Halicarnassus and was published on the subject of Persian art. He was knighted in 1887.

*Right: As well as being accomplished in many scientific and artistic fields, Smith was renowned for his good humour*







# HITLER'S FOREIGN LEGIONS

WORDS JON TRIGG

In its final desperate hour, the Third Reich was defended by die-hard volunteers, recruited into the Waffen-SS from the nations of Nazi conquest. But who were these men, and how did they find themselves on the Führer's frontline?

**B**erlin is burning. After more than five years of war, the Nazis' much-vaunted 'thousand-year Reich' is finally coming to an end. But the agony isn't over quite yet. As the Soviet Red Army inexorably advances into the heart of the city, a few thousand surviving defenders desperately fight on.

One of them – an officer – tries to get a better view of what is happening by climbing up a telegraph pole. Precariously hanging on with one hand while holding his binoculars with the other, he doesn't see the Soviet marksman who shoots him. His men rush to his aid, but he's already dead.

As a sign of respect, and despite the chaos around them, they bury him in Plötsensee Cemetery, in a makeshift coffin made from old ammunition crates. The name on the grave marker reads "Per Sørensen" – the dead officer wasn't German, but hailed from the small parish of Essenbæk in Denmark.

A few days later, it's all over. Hitler is dead, the guns are finally silent. Among a column of dejected prisoners of war, a drunken Soviet soldier grabs a man out of the line, screaming into his face, "SS!, SS!". The guards pull him away, only for him to turn back and shoot the prisoner in the head. The column marches on, leaving the corpse where it fell.





A camouflaged 75mm anti-tank gun is manned by 5. Wiking Division in 1944



This man wasn't German either; he was French, and his name was Roger Albert-Brunet, a native of Dauphine and a recipient of the Iron Cross First Class.

What were a Dane and a Frenchman doing defending Berlin at the war's end? The truth is one of the most fascinating stories of World War II, and one of the least known.

### Genesis of the foreign SS legions

When Hitler sent the Wehrmacht to invade and occupy Scandinavia and western Europe in 1940, a new force went with the army, small in number but huge in symbolism: the Waffen, or 'Armed' SS. These men weren't regular soldiers exactly, but were part of something quite different, a military wing of the Nazi Party itself.

Established at first to protect Hitler and other senior Nazis from physical attack during the often-violent street politics of the 1920s and 1930s, they had evolved under the leadership of their head (and arch-intriguer) Heinrich Himmler into 'Special Purpose troops', answerable only to the party and Hitler himself. They had proven their loyalty during the 'Night of the Long Knives' when they brutally destroyed their rivals in the SA brownshirts on their Führer's orders. They were 'rewarded' by being allowed to join the army in the Nazis' war of aggression.

## "AS FOR THE FRENCH, BELGIAN WALLOONS AND SPANISH, THEY WERE ALLOWED TO JOIN THE GERMAN ARMY BUT NOT THE WAFFEN-SS – THEY WEREN'T 'ARYAN' ENOUGH"

At that time, they numbered a mere two divisions, a brigade and a handful of independent regiments, among a German force of well over 100 divisions, but Himmler and his sidekick Gottlob Berger – a former gym instructor – had big plans for their expansion. The stumbling block for the future growth of the Waffen-SS was the army, which had no wish to see anyone but itself bear arms for the nation, or cream off valuable manpower.

Berger's solution was to look outside Germany's borders, both for ethnic Germans – the so-called *volksdeutsche* – and those populations that were considered 'racially acceptable', which included the Scandinavian countries, the Netherlands and Flemish Belgium (the French-speaking Walloon half of the

country was deemed 'beyond the Pale' at first). Interestingly, the English were also seen as acceptable, but the Celtic Scots, Irish and Welsh were not.

Several thousand volunteers came forward, many – but by no means all – supporters of far-right parties within their own countries, such as Anton Mussert's Dutch NSB and Vidkun Quisling's Norwegian Nasjonal Samling. In Belgian Flanders, the majority of recruits were nationalists who thought the Nazis would grant them a country of their own if they fought alongside them, or so young men like Oswald van Ooteghem believed: "We didn't join up for the pay, that's for sure!... I was then, and still am today, a Flemish nationalist, and that's why I joined." As for the French, Belgian Walloons and Spanish, they were allowed to join the German Army but not the Waffen-SS – they weren't 'Aryan' enough.

### The 'crusade against Bolshevism'

The invasion of the Soviet Union in the summer of 1941 stimulated a surge in recruitment, as anti-communists eagerly enlisted from across the occupied countries, and new units were established to accommodate them. Volunteers tended to be concentrated in their national legions, or designated formations such as the SS-Wiking Division.



## HITLER'S FOREIGN LEGIONS

*Belgian Flemish SS-Legion Flandern volunteers train with an MG 34, in spring 1941, before heading to the siege lines around Leningrad*



Danish volunteer Ivar Corneliussen was in the Wiking's Westland Regiment as it advanced into Ukraine across the steppe: "I saw a Cossack attack with my own eyes, all of them on horseback and waving their sabres. They charged towards us, it was madness, I couldn't believe what I was seeing... we mowed them down, dozens and dozens of them... it was just slaughter, the machine-guns shredded them. We had a Dutch commander at the time and he loved horses, so when it was all over, he sent us out onto the steppe to shoot them and put them out of their misery."

Many other recruits found themselves in a variety of units either by choice or through the machinations of bureaucracy. For the former, several hundred Norwegians volunteered for specialist ski companies in the far north, fighting alongside the Finns. One of them was Asbjørn Narmo: "I joined the Waffen-SS to help the Finns. I wanted to go earlier to help them fight the Russians, but they wouldn't let me. So, when the Germans said they'd send volunteers there, that was it, I enlisted."

Several hundred other recruits ended up in several different units, like the Dane Andreas Fleischer: "I wanted to join the best, the Waffen-SS, and they sent me to the Totenkopf Division, I didn't have any choice about it." Serving pretty much exclusively on the Eastern Front, casualties were heavy, with the volunteers taking part in some of the bitterest battles of the campaign.

As the Soviets fought to lift the siege of Leningrad, their attacks were met by Flemings and Spaniards. One such man reported, "We reached Krasny Bor in February 1943... the road from Leningrad to Moscow became a road of death at Krasny Bor... you looked

**"I WANTED TO GO EARLIER TO HELP THEM FIGHT THE RUSSIANS, BUT THEY WOULDN'T LET ME. SO, WHEN THE GERMANS SAID THEY'D SEND VOLUNTEERS THERE, THAT WAS IT, I ENLISTED"**

left and saw our soldiers piling up the dead and wounded. The scenes were horrific... unfortunately at some point a tank shell exploded near to both Harry and I (author; Harry de Booy was Oswald van Ooteghem's best friend) and we were both hit by shrapnel. I wasn't wounded all that badly, but Harry had been hit in the chest, near his heart... He died in my arms, calling my name."

### **1943: a bigger net**

The Wehrmacht was suffering a manpower shortage by the spring of 1942, with casualties in Russia exceeding the 1 million mark. The surrender of the remnants of Sixth Army at Stalingrad the following year turned the shortage into a full-blown crisis. This was bad news for Himmler and Berger. Neither was content just filling the gaps torn in the ranks from the fighting, while the former in particular was determined to grow his own personal power through an expansion of the Waffen-SS.

As the army sought to solve its numbers problem with comb-outs of support services, transfers from the Luftwaffe and Kriegsmarine

and additional categories of civilian workers reclassified for military service, the SS took a radically different approach. Having started down the road of using non-Germans to fill the ranks as far back as 1940, the SS was well-positioned to grow on the backs of foreign recruits – and so it did. The original physical standards on selection, which had at first even barred volunteers who had a dental filling, were ignored. Also cast aside were the racial requirements that had been sacrosanct. A flurry of new divisions were established, such as the ethnic German 7. SS-Freiwilligen-Gebirgs-Division 'Prinz Eugen' and 8. Kavallerie-Division 'Florian Geyer' – both created to fight partisans behind the lines, the former in Yugoslavia, the latter in Russia.

They were soon joined by the 13. Waffen-Gebirgs-Division der SS 'Handschar', whose members were recruited from among the Muslim communities of Bosnia-Herzegovina; the division had its own imams and standard-issue fezes. Even the much-cherished anti-Slav bigotry was ditched, as divisions were raised among Latvians, Estonians and Ukrainians. The overall result was a doubling in size of the Waffen-SS by the end of 1943, and that number would continue to increase well into 1944.

### **The western European assault brigades**

As far as the SS authorities were concerned, the western Europeans had proven themselves in the fighting in Russia and were ready to have their units upgraded to new 'Sturmbrigaden' – assault brigades. Three of these would be formed in total: 5. SS-Freiwilligen-Sturmbrigade 'Wallonien', 6. SS-Freiwilligen-Sturmbrigade 'Langemarck' and 8. SS-Freiwilligen-Sturmbrigade 'Frankreich'.





# THE FIRST WAVE OF VOLUNTEERS

MOTIVATED BY A VARIETY OF REASONS TO VOLUNTEER TO JOIN THE NAZI WAR EFFORT, MEN FROM OCCUPIED EUROPE BECAME EMBROILED IN THE FIGHTING IN THE USSR

Even as the Wehrmacht was fighting its way across Belgium, the Netherlands and France in May 1940, the head of the SS, Heinrich Himmler, gave the order to establish two new regiments – the SS-Westland and SS-Nordland. Each was to be recruited from foreign volunteers; the former from the Netherlands and Belgian Flanders, the latter from Norway, Denmark and Sweden. Volunteers had to be aged between 18-25, physically fit, have no criminal record and be of 'Aryan' descent.

Intended to be 3,000 men strong, neither unit reached this mark, and native Germans were drafted in to make up the numbers. They were then combined with an existing German SS regiment, 'Germania', to form the SS-Wiking Division under the command of Felix Steiner. Following the invasion of the communist Soviet Union in June 1941, the Nazis embarked on a new recruitment drive to form a series of national legions for what they were now calling the 'crusade against Bolshevism'.

These units would wear German uniform and carry German weapons, but would be officered by non-Germans and sometimes even issue orders in their own languages. Four legions were established by the Waffen-SS; the Norwegian 'Legion Norwegen', the Dutch 'Legion Niederlande', the Belgian Flemish 'Legion Flandern' and the Danish 'Freikorps Danmark'. The German Army founded two of its own units from nationalities not considered 'Aryan' enough by the SS; the Belgian Walloon Légion Wallonie (officially entitled Infanterie Bataillon Nr. 373) and the French Légion des Volontaires Français contre le bolchevisme (LVF).

The reasons men came forward varied; the most common was a powerful sense of anti-communism, and for the Flemish a hope

that the Nazis would reward their service with independence. For some it was a desire for adventure and a belief in the promises made in the recruiting offices.

Well over a thousand men enlisted for each legion, only for some to leave during training when many of the promises made to them were broken, and they realised that a lot of their German comrades considered them 'inferior' as soldiers. Sent to the Eastern Front in the winter of 1941/42, the French and Walloons went to central and southern Russia, carrying out rear-area security duties and fighting partisans. The SS legions went north; the Norwegians, Flemish and Dutch to help lay siege to Leningrad (now St Petersburg) and the Danes to fight alongside the SS-Totenkopf (Death's Head) Division in the Demyansk Pocket.

The fighting was brutal. One of the Danish volunteers, Magnus Møller, remembered the death in action of his commanding officer: "The next thing, he stood on a mine and bang, off it went and blew him up. His right leg was completely gone, and he was lying there, and then the Russians attacked again... a shell landed right where he was, and that was it – he was gone, just gone, in an instant." Bjørn Østring, a Norwegian, fought at Urizk outside Leningrad. "The other side of the barbed wire... seemed like some sort of 'moving carpet' consisting of dead and wounded Russian soldiers. The air was filled with screams, and it was impossible to hear any orders or commands from anyone," he reported.

Stories of German mistreatment of volunteers and the length of the casualty lists slowed the flow of replacements to a trickle, and just 18 months after their creation the legions were withdrawn and disbanded. The first wave of recruitment was over.

*Dutch Waffen-SS volunteers leave the Netherlands by train, 1942/43. The Dutch provided the largest number of recruits from western Europe*



*French Waffen-SS volunteers leave Paris by rail bound for a training camp, August 1944. The Anglo-American forces were racing for the city by then*



*A Danish Freikorps Danmark colour party on parade in spring 1941. The Freikorps would have its baptism of fire in the Demyansk Pocket*

Each would be paired with an existing division and would begin to be equipped with heavy weapons, such as artillery, anti-tank guns and even, in the case of the Flemish Langemarck, self-propelled guns – the poor man's panzers. The Wallonien and Frankreich were, as you'd expect, composed of Walloons and Frenchmen respectively, which was another big departure from the past – under the new rules both were now considered 'racially acceptable' and were transferred en masse to the Waffen-SS from the army, whether they liked it or not.

## The SS-Nordland & SS-Wiking

For the Scandinavians, the decision was made to concentrate most of them into a new division; 11. SS-Freiwilligen-Panzergrrenadier-Division 'Nordland'. This unit would have two regiments of grenadiers; the Danmark and Norge, for Danes and Norwegians respectively, and an entire battalion of panzers – the 'Hermann von Salza', named after the medieval grand master of the Teutonic Knights.

The Nordland was sent to occupied Yugoslavia to form up and train – the hope being that it could do so in relative peace, but that wasn't something Josip Tito's communist Partisans were going to allow. After one particular skirmish, their German corps commander, Felix Steiner, issued an order praising the courage of one Danish volunteer: "SS-Unterscharführer N.O. Christensen... after heavy fighting with superior numbers of the enemy on 22nd November 1943, fell into the hands of the Bolsheviks. Before they

*Right: Two Scandinavian volunteers with their hands raised – a Norwegian left, a Dane right – swear their oath of allegiance to Adolf Hitler in spring 1941*






## HITLER'S FOREIGN LEGIONS

*An MG 42 operated by the  
SS-Wiking Division on the  
Russian front in 1943*







**"I SAW A COSSACK ATTACK WITH MY OWN EYES,  
ALL OF THEM ON HORSEBACK AND WAVING THEIR  
SABRES. THEY CHARGED TOWARDS US, IT WAS  
MADNESS, I COULDN'T BELIEVE WHAT I WAS  
SEEING... WE MOWED THEM DOWN, DOZENS AND  
DOZENS OF THEM... IT WAS JUST SLAUGHTER, THE  
MACHINE-GUNS SHREDDED THEM"**



# EUROPE'S SS VOLUNTEERS

MEN FROM ACROSS THE CONTINENT CAME FORWARD TO FIGHT FOR THE NAZIS

## NORWAY LEGION NORWEGEN

SS-Schijaeger Bataillon  
SS-Polizei-Schijaeger-Bataillon 506. (mot.)  
5. SS-Panzer-Division 'Wiking'  
11. SS-Freiwilligen-Panzer Grenadier-Division 'Nordland'

**NUMBER OF VOLUNTEERS: 6-7,000**

## UNITED KINGDOM

Britisches Freikorps - Legion of St George  
**NUMBER OF VOLUNTEERS: <60**  
Thomas Cooper, who was half-German through his mother, was the only Briton to receive a Nazi battlefield decoration during the war - in his case the Wound Badge in Silver.

## BELGIUM FLEMISH - LEGION FLANDERN

6. SS-Freiwilligen-Sturmbrigade 'Langemarck'  
27. SS-Freiwilligen-Grenadier-Division 'Langemarck'

**NUMBER OF VOLUNTEERS: 15,000**

## WALLOON - LÉGION WALLONIE

5. SS-Freiwilligen-Sturmbrigade 'Wallonien'  
28. SS-Freiwilligen-Grenadier-Division 'Wallonien'

**NUMBER OF VOLUNTEERS: 10,000**

## FRANCE

Légion des Volontaires Français contre le bolchevisme (LVF)  
8. SS-Freiwilligen-Sturmbrigade 'Frankreich'  
33. Waffen-Grenadier-Division der SS 'Charlemagne'

**NUMBER OF VOLUNTEERS: 20,000**

## SWEDEN

No Swedish-only unit was ever formed. The limited number of volunteers mainly served with their fellow Scandinavians in the SS-Wiking Division, and latterly, 11. SS-Panzer Grenadier-Division 'Nordland'

**NUMBER OF VOLUNTEERS: 300**

## ESTONIA

Estnische SS-Legion  
Estnische SS-Freiwilligen-Bataillon 'Narwa'  
Estnische SS-Freiwilligen-Brigade  
20. Waffen-Grenadier-Division der SS (estnische Nr.1)

**NUMBER OF VOLUNTEERS: 25,000**

## LATVIA

15. Waffen-Grenadier-Division der SS (lettische Nr.1)  
19. Waffen-Grenadier-Division der SS (lettische Nr.1)

**NUMBER OF VOLUNTEERS: 80,000**

## DENMARK FREIKORPS DANMARK

5. SS-Panzer-Division 'Wiking'  
11. SS-Freiwilligen-Panzer Grenadier-Division 'Nordland'

**NUMBER OF VOLUNTEERS: 10,000**

## NETHERLANDS LEGION NEDERLANDE

4. SS-Freiwilligen-Panzer Grenadier-Brigade 'Nederland'  
23. SS-Freiwilligen-Panzer Grenadier-Division 'Nederland'  
34. SS-Freiwilligen-Grenadier-Division 'Landstorm Nederland'

**NUMBER OF VOLUNTEERS: 50,000**

## ITALY

Waffen-Grenadier-Brigade der SS (italienische Nr.1)  
29. Waffen-Grenadier-Division der SS (italienische Nr.1)

**NUMBER OF VOLUNTEERS: 15,000**



Men from the SS-Wiking Division in action in a Soviet village





could search him, he reached into his trouser pockets, in which he had two hand grenades, and set them both off. The explosion shattered SS-Unterscharführer Christensen, the four SS men standing around him, and all the Bolsheviks surrounding him."

As for the Dutch – the largest non-German contingent in the Waffen-SS – they formed their own unit of almost divisional-size: 4. SS-Freiwilligen-Panzer Grenadier-Brigade 'Nederland'.

The winter of 1943-44 found all the western European units, bar the Frankreich, which was still under formation, called to the Eastern Front for their toughest test yet.

### The winter battles

In the south, the SS-Wiking and its partnered assault brigade, the Wallonien, were encircled in a pocket at Cherkassy near the Dnieper River, along with almost 40,000 German soldiers. When a relief attempt failed, a breakout was ordered but only succeeded in part – both the Wiking and Wallonien managed to escape, but casualties were horrific as the men desperately sought to escape.

A Russian officer, Major Kampov, described the flight: "Hundreds and hundreds of cavalry were hacking at them with their sabres, and massacred the Fritzies as no one had ever been massacred by cavalry before. There was no time to take prisoners. It was the kind of carnage that nothing could stop till it was over. I had been at Stalingrad, but never had I seen

such concentrated slaughter as in the fields and ravines of that small bit of country."

Meanwhile, the Flemings of the Langemarck were paired with the 2. SS-Panzer-Division 'Das Reich' and tasked with breaking the encirclement of First Panzerarmee at Kamenets-Podolsky, a feat they achieved, before being almost destroyed at Yampol.

Hundreds of kilometres north, the siege of Leningrad was finally lifted as the Red Army surged forward in January. The Nordland found itself acting as a 'fire brigade', rushing from place to place trying to halt the Soviet advance. John Sandstadt, a Norwegian in the Norge, recalled the fighting: "On the day of the first major Soviet attack our company had a strength of 118 men: seven reichsdeutsche NCOs, 34 volksdeutsche soldiers, 1 Flemish Unterscharführer and 76 Norwegians... our counterattack in the morning completely collapsed under Soviet crossfire. We immediately lost 13 dead and many wounded... My brother Olav... fell in the Koshirizy area after five days. His last resting place was in the former divisional cemetery near Begunizy, between St Petersburg and Narva... after twelve days, on January 27 1944, our company consisted of one Obersturmführer, 5 NCOs and some 35 men."

### Narva – the 'battle of the European SS' & the French

After the heavy fighting around Leningrad, the Germans fell back to Estonia and set up a defensive position near the Narva River and

the twin Hermannsburg and Ivangorod fortresses on either bank. For the next six months the fighting would seesaw until it came to a climax in late July, by which time so many non-German units were involved that the battle became known as that of the 'European SS', although they were always in a minority overall. Danes and Norwegians of the Nordland were there, as were the Dutch of the 'Nederland' and Estonians of 20. Waffen-Grenadier-Division der SS (estnische Nr. 1), defending their homeland. The last contingent to arrive was a small kampfguppe (battlegroup) from the Langemarck. The Flemings had been withdrawn to rest and refit after Yampol, but the military situation was so dire that a few hundred were sent north anyway.

The reason the picture was so bleak was due to the overall military position of the Third Reich that summer. Rome had fallen, and Anglo-American forces had advanced into the north of Italy. 'Festung Europa' – 'Fortress Europe' – had been breached with the enormous success of the Allied landings in France on D-Day, while in the east the Soviets had launched the incredibly successful, but still little known, Bagration offensive, four years to the day after the German invasion of their country. That offensive had annihilated an entire German army group of 35 divisions and was taking the Red Army to the pre-war borders of Poland and Romania. Two of the units trying to slow their advance were the Frenchmen of the LVF and the Frankreich.

Both fought hard and losses were steep; in the Frankreich, of the 1,000 men who went into action 137 were killed, and total casualties amounted to no fewer than 15 of the 20 officers and 831 of the 980 other ranks.

Back on the Narva, a large Soviet offensive in late July necessitated

**"I HAD BEEN AT STALINGRAD, BUT NEVER HAD I SEEN SUCH CONCENTRATED SLAUGHTER AS IN THE FIELDS AND RAVINES OF THAT SMALL BIT OF COUNTRY"**



A Dutch Waffen-SS member of the SS-Legion Niederlande training with a sniper rifle



a retreat from the river to a prepared position based on three hills in Estonia's Blue Mountains; Orphanage Hill, Grenadier Hill and Love's Hill. During the retreat a whole regiment of Dutch volunteers was caught in the open and massacred. When Orphanage Hill fell to a Soviet attack, the Flemish volunteer Remi Schrijnen won a Knight's Cross after stopping the assault in its tracks.

## 1944 – stretching the SS elastic

Even as Nazi territory shrank in 1944 the Waffen-SS grew, with another 19 divisions added to the roll, although most were divisions in name only and were of little combat value. An additional Bosnian Muslim division was created, 23. 'Kama', as was an Albanian Muslim formation, 21. 'Skanderbeg'. Various other remnants, conscripts and third-tier units were suddenly transformed into SS divisions; among them the Hungarian ethnic German 25. Waffen-Grenadier-Division der SS 'Hunyadi', the Italian 29. and Russian 30. Waffen-Grenadier Divisions, and the 35. SS und Polizei-Grenadier Division, made up of unemployed Ordnungspolizei men.

The Waffen-SS was now at its zenith in terms of pure numbers, at around 600,000. However, this wasn't reflected in its military effectiveness. The remaining western European volunteers were now viewed by the Waffen-SS hierarchy as veterans, and as suitable cadres around which to build yet more divisions – buttressed by the large numbers of now-refugee collaborators, paramilitaries and fellow travellers who had been forced to leave their own countries as liberation neared.

**“THE WAFFEN-SS WAS NOW AT ITS ZENITH IN TERMS OF PURE NUMBERS, AT AROUND 600,000. HOWEVER, THIS WASN'T REFLECTED IN ITS MILITARY EFFECTIVENESS”**

In a last flourish, the Belgians, French and Dutch all achieved divisional status. The Flemish became the 27. SS-Freiwilligen-Grenadier-Division 'Langemarck', the Walloons the 28. SS-Freiwilligen-Grenadier-Division 'Wallonien', the French the 33. Waffen-Grenadier Division der SS (französische Nr. 1) 'Charlemagne', and the Dutch formed two divisions no less; the 23. SS-Freiwilligen-Panzergrénadier-Division 'Nederland', and the 34. SS-Freiwilligen-Grenadier-Division 'Landstorm Nederland'.

## The nightmare ends

The 'old' Waffen-SS divisions – the Leibstandarte, Das Reich and Totenkopf among others – were still tough opponents, but as the jaws of the western Allies and the Soviets closed in around Berlin, most of them were far away, fighting in Austria. Those units of the armed SS who were closest to Berlin were nearly all comprised of the western European volunteers.

The Belgians of the Wallonien were smashed on the Oder River at Altdamm, and their comrades of the Nordland were sent reeling back into the city as the Soviet fronts of Marshals Zhukov and Konev fought their way forward. The few hundred surviving Danes and Norwegians of the Danmark and Norge regiments found themselves the mainstay of Berlin's defences, even as Soviet artillery started bombarding the city.

To the south of the Nazi capital, a couple of thousand Frenchmen were being reorganised into some sort of fighting unit after a torrid time in Pomerania, eastern Germany (now part of modern-day Poland). A few months earlier, having been brought up to a strength of around 8,000 men with former Miliciens, ex-LVF and Frankreich men, and christened the 'Charlemagne', the new French division had been shipped east to fight the Soviets. Almost from the train, they had met disaster, being split into three parts by repeated Red Army attacks, with each trying to escape west. The majority had ended up as prisoners or casualties.

Now the order arrived to form a kampfguppe from the best men and all available weapons, and head into the city before it was cut off. So 'Sturmataillon Charlemagne' was formed, with

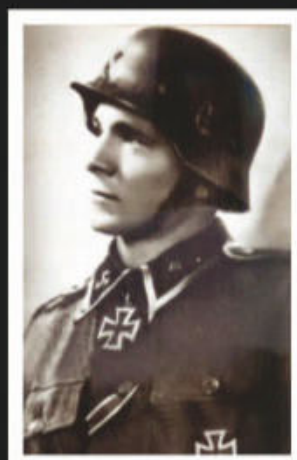


## KNIGHTS OF THE LEGIONS

SEVERAL FOREIGN VOLUNTEERS RECEIVED THE KNIGHT'S CROSS OF THE IRON CROSS



### REMI SCHRIJNEN SS-STURMBRIGADE 'LANGEMARCK'



Born in the Belgian village of Kumtich in 1921. A Flemish nationalist, he joined the Vlaamsch Nationaal Verbond (VNV) as a teenager. After Belgium's occupation he tried to join the Waffen-SS but was initially refused for being too short. Finally, he reached the Legion Flandern and served on the Russian Front. During the battle of Narva in July 1944 he single-handedly stopped a Soviet tank attack and was awarded the Knight's Cross.

### HENRI FENET 33. WAFFEN-GRENADIER DIVISION DER SS (FRANZÖSISCHE NR. 1) 'CHARLEMAGNE'



Born in 1919, the bespectacled Fenet served as an officer in the French army and was captured by the Germans in 1940. After service with the collaborationist Milice, he joined the Waffen-SS in 1944 and fought in Pomerania. As the Soviets closed in on Berlin, he was one of a few hundred French soldiers who volunteered to defend the city as part of the 'Sturmataillon Charlemagne'. Wounded in the foot, he was awarded the Knight's Cross by Wilhelm Mohnke just before the city fell.





*Below: The Belgian Walloon Waffen-SS leader, Léon Degrelle, leads his men on patrol on the Eastern Front, 6 October 1944, his Knight's Cross round his neck*



*Dutch volunteers of the Waffen-SS during training exercises in spring 1941*



*Right: An officer and men of the Freikorps (or Frikorps in Danish) Denmark, pictured in 1941*

## EUGÈNE VAULOT

### 33. WAFEN-GRENADIER DIVISION DER SS (FRANZÖSISCHE NR. 1) 'CHARLEMAGNE'



Born in Paris in 1923, Vaultot was a plumber before enlisting in the LVF in 1941. Wounded in action in Russia, he was discharged but enlisted once more, this time in the Kriegsmarine. Transferring to the Charlemagne, he volunteered to defend Berlin, and during the battle was credited with destroying as many as eight Soviet tanks with panzerfausts, for which he became one of the last ever Knight's Cross recipients. He was killed trying to escape the city.

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## EGON CHRISTOPHERSEN

### SS-PANZERGRENADIER-REGIMENT 24 'DANMARK'



Born in Strøby, Denmark in 1919, Christophersen joined the SS-Wiking along with his brother, Viggo, who was killed in Yugoslavia in 1943. While serving in the Denmark at the battle of Narva in June 1944, Egon personally led a counterattack with a handful of men to retake the crucial Outpost Sunshine strongpoint. For this act he became the first ever Scandinavian volunteer to be awarded the Knight's Cross.

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## GERARDUS MOOYMAN

### LEGION NIEDERLANDE



Born in Apeldoorn in the Netherlands in 1923, Mooyman joined the Legion Niederlande and served in northern Russia. During the Soviet Lake Ladoga offensive of February 1943, he commanded a self-propelled anti-tank gun. When the Soviets broke through the lines, Mooyman and his crew destroyed 13 Soviet tanks in one day, halting the attack. He became the first non-German foreign volunteer to be awarded the Knight's Cross and was feted in the Nazi press. He died in a car accident in the Netherlands in 1987.

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1943 – the staff company of the Bosnian Muslim 13. SS-Handschar Division practise drill. One of the most bizarre units the Waffen-SS to be formed, it was also the only one where some men mutinied

around 500 men loaded onto trucks and driven into Berlin even as Nazi rule entered its death throes. A hundred or so didn't make it, their transports breaking down or losing their way in the maelstrom of refugees.

The rest, under the Charlemagne's German commander, Gustav Krukenberg, reached Berlin and were combined with the remnants of the Nordland to defend the eastern section of the city near Tempelhof Airport. The fighting was bitter – the Danes, Norwegians and Frenchmen counterattacking in the Neukölln district before being pushed back towards their Stadtmitte U-Bahn headquarters. Erik Wallin, a Swede in the Nordland, remembered what they were up against: "There was no limit to their tank forces. The infantry we saw less and less of though. Time after time we realised that the forces ranged against us were exclusively tanks, assault guns and entire battalions of Stalin Organ rockets. There wasn't an infantry soldier amongst them."

Amid the burning buildings and rubble, the French grenadiers in particular earned themselves a reputation for the close-quarters destruction of Soviet tanks; three of the sturmabteilung's members were awarded the Knight's Cross as a result.

The end came quickly. After Hitler's suicide, a breakout was attempted by the garrison, only for most of them to be killed or driven back. With no hope of relief, on 2 May 1945 General Helmuth Weidling surrendered the city to the Soviet commander, Vasily Chuikov. Most of the surviving defenders surrendered with a mixture of relief and trepidation; relief that it was all over and they were still alive, but also fearing what Soviet captivity would hold for them. For French volunteer Roger Albert-Brunet, that captivity would last a matter of hours before he got his answer as to how he would be treated,

**"BELGIAN JUSTICE! IT WAS NO JUSTICE AT ALL! WE JUST FOUGHT FOR FLANDERS, AGAINST BOLSHEVISM – THAT'S ALL WE DID – WHAT IS SO WRONG ABOUT THAT?"**

receiving a bullet to the head from a Soviet soldier after surrendering.

Some of the foreign volunteers decided to try and escape following their surrender. A Norwegian, Bjørn Lindstad, knew two such men: "Two of the Norge Regiment's panzergrenadiers, Lage Søgaaard and Kasper Sivesind... Søgaaard was captured in Berlin by the Russians but managed to escape when his guards got drunk, and he made it safely to the British Embassy. As for Sivesind, he hid in a cellar for a week, living off stolen food and licking water that was dripping down into the corner of the cellar. Then, one night, he escaped from the city, got to the north German coast and hitched a lift on a boat to Denmark, where he was arrested."

Hans-Gösta Pehrsson and Erik Wallin, two of the tiny number of Swedish SS men, also made it out. They heard of an official crossing-point over the Elbe River at Wittenberge for displaced foreigners trying to get home. Trekking to the site, alternatively dodging or bluffing their way past Red Army checkpoints, the two men posed as Italian refugees and smuggled themselves onto a ferry. "The feeling of having at long last got out of the range of fire from the Red Army was overwhelming. We reached the other bank

and were greeted by laughing British soldiers, with the words, 'Welcome back to civilisation!'"

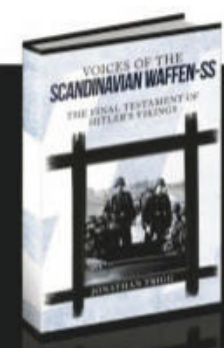
The majority of volunteers who got home were arrested, tried and convicted of collaboration; something they are still bitter about even today, feeling they did little wrong. As two Flemish volunteers, Theo D'Oosterlinck and Dries Coolens, made clear, "Belgian justice! It was no justice at all! We just fought for Flanders, against Bolshevism – that's all we did – what is so wrong about that?"

Regardless, most spent several years in prison and a number were executed. Decades on, only a few – now in their 90s or beyond – are still alive.

No article that discusses the Waffen-SS can avoid mentioning the Holocaust and the evils of Nazism. It was the SS that carried out the mass murder of millions of Jews, among others, and it is a historical fact that certain members of the Waffen-SS participated in atrocities – not least the massacres of prisoners of war at Le Paradis and Malmédy, and of civilians at Oradour-sur-Glane. Almost all the volunteers themselves deny any hand in committing murder and claim they were just soldiers like anyone else.

Magnus Møller, a Dane, spoke for most of them: "What did I think of the Russians? The Russian soldiers weren't good or bad, they were just the enemy you know, killing them was just a job, that was all, a job. You killed them or they killed you – simple."

**Voices of the Scandinavian Waffen-SS – The Final Testament of Hitler's Vikings, by Jonathan Trigg, is available now**





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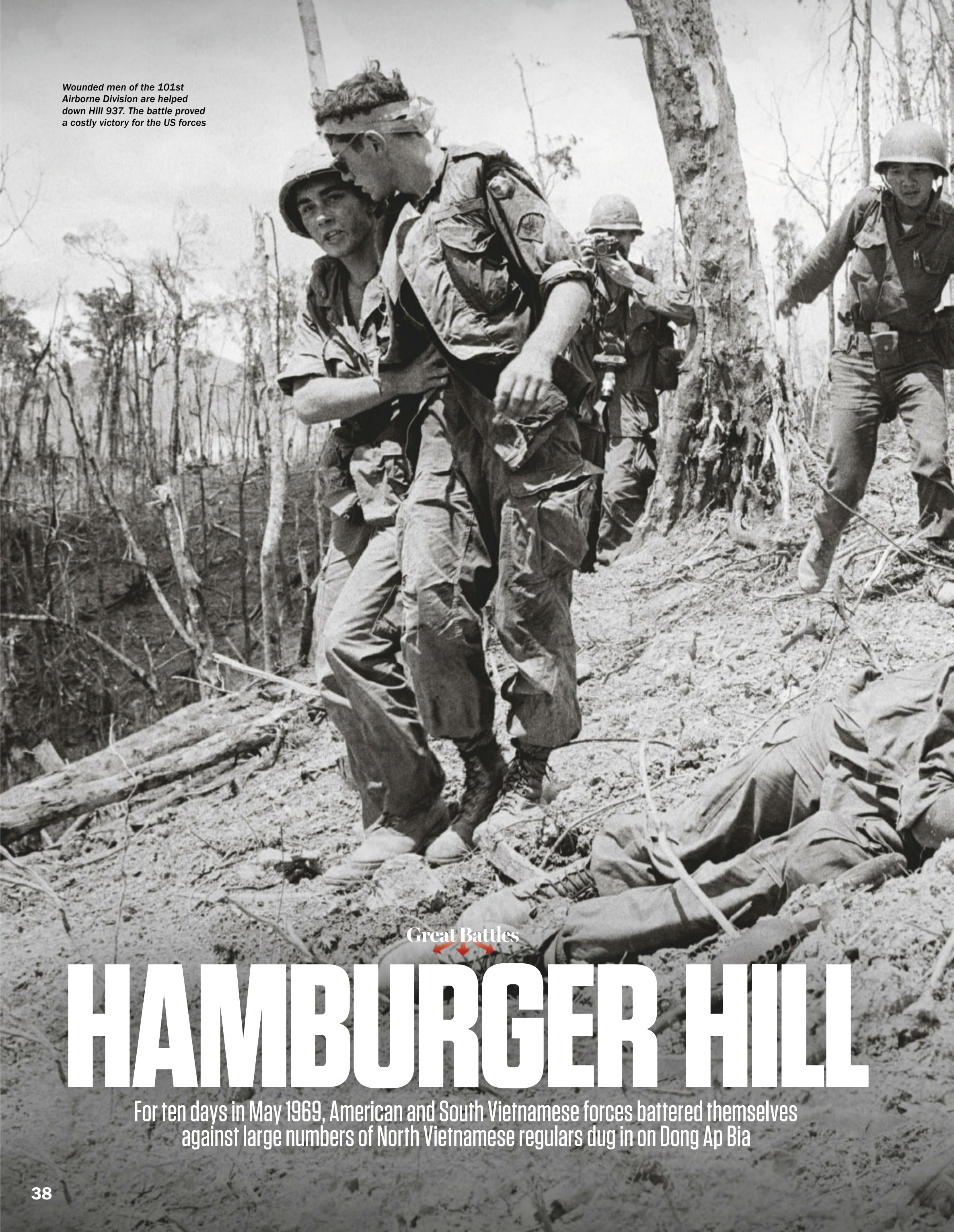
Like so many other of the 18,500 B-24s produced during WWII, Liberator 42-52154 'Male Call' was an extremely hard working machine, surviving the war having completed an impressive 95 bombing missions – she is thought to have been the only survivor of the original 61 aircraft assigned to the 453rd Bombardment Group, which arrived at RAF Old Buckenham airfield on 21st January 1944. The aircraft was one of the Liberators flown by celebrated Hollywood actor James 'Jimmy' Stewart during his time as Group Operations Officer with the 453rd Bombardment Group at the Norfolk airfield.

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Wounded men of the 101st Airborne Division are helped down Hill 937. The battle proved a costly victory for the US forces

Great Battles

# HAMBURGER HILL

For ten days in May 1969, American and South Vietnamese forces battered themselves against large numbers of North Vietnamese regulars dug in on Dong Ap Bia





Right: General Creighton Abrams, who became the new chief of Military Assistance Command, Vietnam, in June 1968

## DONG AP BIA REPUBLIC OF SOUTH VIETNAM 11-20 MAY 1969

WORDS MARC DESANTIS



The Tet Offensive of January 1968 had been an enormous blow against the Americans and their South Vietnamese allies, but not necessarily in the way the North Vietnamese had anticipated. While the Americans and South Vietnamese had lost heavily, the North Vietnamese Army (NVA) itself had been mauled and the Viet Cong irregulars in the South had been decimated. Coming out to fight the Americans in the open had proven extremely costly. From now on, the Viet Cong would focus on preserving its strength. Similarly, several regiments of the NVA regular troops had been horribly battered in combat and had needed rebuilding.

It was in the realm of public opinion, however, that communist North Vietnam, studiously working to eject the Americans and topple the South Vietnamese government, achieved its greatest results. Never-ending American casualties for little measurable gain turned the Tet Offensive into a political victory for the communists in American public opinion, which became increasingly negative towards the war.

Among the Americans, there was a change of strategy too. General Creighton Abrams was named the new chief of Military Assistance Command, Vietnam (MACV) in June 1968, replacing General William Westmoreland in the post. That same year, US forces in Vietnam reached a wartime high of 535,000 military personnel. Despite this huge force in-country, the US and the Army of the Republic of Vietnam (ARVN) had come no closer to achieving victory over the communist insurgency than when American involvement had begun years earlier.

Abrams introduced a different objective for American forces. Instead of

Westmoreland's 'attrition strategy', which focused on finding and destroying the enemy's 'Main Force' units, Abrams emphasised 'pacification' of the Vietnamese countryside, which included the protection of the civilian populace. The strategy started to bear fruit, and it caused the



communists severe trouble in sustaining their grip on areas they had long held.

Abrams, however, did not reject the idea of taking the fight to Main Force units. If they were found, they were to be attacked and destroyed. One heavy concentration was located in the A Shau Valley in the far north of South Vietnam, close to the Laotian border. The mountainous, jungle-clad and largely inaccessible A Shau had been a stronghold for the NVA since 1966, when a US special forces base there had been overwhelmed. The A Shau was a North Vietnamese bastion filled with stockpiles of weapons, ammunition, vehicles, food, water, and sundry other supplies brought there via the Ho Chi Minh Trail. This made the valley a prime staging area for attacks into the South, including the devastating Tet Offensive. Intelligence also revealed that the elite 29th NVA Regiment, as well as the 6th and 9th NVA Regiments, were currently present in the valley. To root them out, MACV initiated Operation Apache Snow.

This operation would not be the first US incursion into the A Shau. In April-May 1968, Westmoreland had launched Operation

**“IF THE NVA BEHAVED AS THEY TYPICALLY DID, AND BOLTED, THEY’D BE SACRIFICING ALL OF THE MYRIAD SUPPLIES THAT WOULD BE LEFT BEHIND”**

Delaware, in which the US 1st Cavalry Division had achieved only mixed results against a dug-in communist force amid terrible weather. Operation Apache Snow would be led by the ‘Screaming Eagles’ of the US 101st Airborne. This division had gained immortal fame for its epic defence of Bastogne during the Battle of the Bulge in 1944. It had switched to helicopters and was now termed ‘airmobile’. The 101st had also been to the A Shau before. In August 1968, during Operation Somerset Plains, the division had conducted a helicopter assault into the valley but achieved only limited success in making a dent in the communist forces there. Frustratingly, the big NVA units would not give battle, either moving away down the valley or up the steep mountainsides.

**Apache Snow**  
General Abrams gave the 101st Airborne another chance in May 1969. The objective of Apache Snow was to drive the NVA out of

the valley. If the NVA behaved as they typically did, and bolted, they’d be sacrificing all of the myriad supplies that would be left behind.

The attack was to be spearheaded by the 450 soldiers of 3/187th, or the 3rd Battalion of the 187th Regiment of the 101st Airborne Division, which was commanded by Lieutenant Colonel Weldon ‘Blackjack’ Honeycutt. It was accompanied into the A Shau by the 1/506th Regiment and the 2/501st Regiment, also of the 101st Airborne. US Marines and ARVN forces would also take part, in supporting roles.

The target for the four companies of 3/187th, nicknamed the 'Rakkasans', was Dong Ap Bia, which the local Montagnards called the ‘mountain of the crouching beast’. US military planners knew it more prosaically as Hill 937, because it rose a towering 937 metres (3,074 feet) in height.

On 10 May, a giant aerial convoy of UH-1 ‘Huey’ transport helicopters lifted off and headed into the mountain valley. Lieutenant Frank Boccia, a young platoon leader of Bravo Company of the 3/187th, compared the cruising helicopters to "a swarm of giant green dragonflies". The landing zones were pounded by American warplanes and artillery before the paratroopers arrived. Huge, 6,800-kilogram (15,000-pound) ‘daisy cutter’ bombs were dropped to blast clear spots for the helicopters to touch down. The Rakkasans landed without meeting any




Left: NVA regulars moving along the Ho Chi Minh Trail towards South Vietnam



Troops from the US 101st Airborne Division ascend Dong Ap Bia after the battle

## OPPOSING FORCES




**US ARMY**  
LEADERS:

Major General Melvin Zais, commander of the 101st Airborne Division;  
Colonel Joseph Conmy, commander of 3rd Brigade, 101st Airborne Division;  
Lieutenant Colonel Weldon Honeycutt, commander of 3/187th Battalion ('Rakkasans')

**INFANTRY: 1,800**

**VS**



**PEOPLE'S ARMY OF VIETNAM**  
LEADER:

General Ma Vinh Lan  
29th NVA Regiment

**INFANTRY: 800**



resistance on the first day, and spent the night there before launching their first move against the western side of the mountain.

The NVA was in hiding up on the mountain heights of Dong Ap Bia, waiting in a strongly fortified bunker system for the paratroopers to come to them. On 11 May, the Rakkasans conducted a reconnaissance in force to make contact with the NVA, making limited contact with their enemy in a series of firefights. They would soon learn that their prior assumptions about the willingness of the NVA to stand and fight were wrong.

The NVA had conceived its defence of Dong Ap Bia as a chance to lure in and destroy an entire US battalion from within the security of their maze of bunkers, which were mostly protected against the tremendous firepower of American aircraft and artillery. By allowing the Americans to come close to their positions, the North Vietnamese also aimed to neutralise superior US firepower by making them reluctant to use it at all for fear of hurting their own men. The communists said they were 'grabbing the enemy by the belt' – that is, holding him close.

**Battle is joined**

The 3/187th was hurt on the first day, 11 May, in a 'friendly fire' incident in which the battalion's command post was rocketed by AH-1 'Cobra' helicopter gunships. Two GIs were slain and 35 others were wounded. Lieutenant Colonel Honeycutt was himself seriously

wounded in the accidental strike but remained in command of his battalion.

The terrain of Hill 937 heavily favoured the defenders. The approaches to the summit were jungle-choked ridges and slender trackways, with the NVA's bunkers skilfully sited to cover them. On 12 May, the NVA units ensconced on Dong Ap Bia revealed themselves fully as the Americans ascended. Deadly ambushes were sprung all over the mountain, and the men of the 3/187th were repelled.

The Rakkasans would mount daily assaults to reach the summit but were stopped time after time by the ferocious resistance of the infantrymen of the 29th NVA Regiment. Known as the 'Pride of Ho Chi Minh', these soldiers opened up on the advancing American paratroopers with AK-47 rifles, rocket-propelled grenades, and many other support weapons.

In the close confines of Hill 937, the Americans were at a disadvantage against an enemy who were difficult to spot until they fired. The NVA also launched its own counterattacks on the Americans. "My god, what have we gotten ourselves into?" Lieutenant Boccia would wonder.

Elsewhere in the A Shau, the NVA was not idle. On the night of 12-13 May, an elite assault force of the 6th NVA Regiment struck at Firebase Airborne, an American artillery base on the top of Dong Ngai, a mountain 6.4 kilometres (four miles) to the north of Dong Ap Bia. The firebase contained three

howitzers and two 81mm mortars, which were to provide support fire for Apache Snow. North Vietnamese sappers cut their way, undetected, through the concertina wires that had been strung around their position, and their comrades charged through in the early morning darkness of 13 May. With mortar rounds crashing into the base, the NVA soldiers roamed at will, tossing satchel charges and shooting the stunned Americans, who rushed to mount a defence.

The Americans succeeded in beating back the assault, but only at great cost to themselves. 26 GIs were killed and 62 wounded. At least 40 NVA soldiers were also slain, and losses were likely far heavier, but the NVA adroitly managed to take many of their dead and wounded with them when they made their escape.

**A mountain fortress**

The mountainous terrain of Dong Ap Bia, and the A Shau more generally, made the place a natural fortress. All of the advantages of height accrued to the defenders higher up. The men of the 101st also struggled to get their wounded off the mountain in a timely manner. The helicopters that granted the US Army unmatched mobility in Vietnam were seriously hindered in the A Shau. The choppers' long blades sometimes made it impossible for them to get close enough to the steeply sloped ground to land and pick up the wounded. Intense ground fire also made helicopter

101st Airborne soldiers traverse the blasted terrain around Dong Ap Bia





# HAMBURGER HILL

## MAY 11-20 1969

**01 10 MAY: THE RAKKASANS ARRIVE**  
After a heavy air and artillery bombardment of the landing zone (LZ), at 0710 on 10 May, a large force paratroopers - 'Rakkasans' from the 3/187th Regiment of the 101st Airborne Division - touch down in the mountainous A Shau Valley.

**02 11 MAY: RECONNAISSANCE IN FORCE**  
Still unsure of enemy strength, on 11 May the paratroopers of the 3/187th make their first movement up Dong Ap Bia, or Hill 937, where the NVA's 29th Regiment is well-entrenched. The 3/187th's battalion command post is accidentally hit in a 'friendly fire' incident.

**03 12 MAY: THE NVA RETALIATES**  
On 12 May, the Rakkasans make another attack on Hill 937, and the 29th NVA Regiment shows its full strength, opening up from its many firing pits and bunkers to hammer the Americans with rifle fire and rocket-propelled grenades. NVA positions are pulverised by American airstrikes and artillery, but the hardened North Vietnamese regulars stay put, and will also launch counterattacks from them on the paratroopers throughout the battle.

**04 12-13 MAY: ASSAULT ON FIREBASE AIRBORNE**  
Led by sappers who cut their way through concertina wire, on the night of 12-13 May, NVA assault troops storm Firebase Airborne, a supporting artillery position not far from Hill 937, defended by soldiers of 2/501st Battalion. They are driven off only after severe losses to both sides. The paratroopers of 3/187th continue to make daily attacks on Dong Ap Bia.

**"THE GALLANT RAIDON, NICKNAMED THE 'SAINT', CONTINUED HIS FLYING HEROICS UNTIL HE WAS HIT IN BOTH LEGS DURING A MISSION ON 18 MAY"**





**05 14 MAY: CHARLIE COMPANY MAULED**

Charlie Company of 3/187th attempts to loop around the NVA bunker line but is shredded by NVA fire on 14 May. Bravo Company is forced to call off its own assault to help pull out Charlie Company's killed and wounded. U.S. aircraft continue to strafe the NVA positions, which continues to harry American forces on Hill 937.

**06 15-19 MAY: STALEMATE**

The depleted Rakkasans of the 3/187th are reinforced by the 1/506th Battalion of the 101st Airborne Division. On 15 May, the 1/506th conducts attacks along Hills 916, 800, and 900, which lie to the south of Hill 937, while the Rakkasans again attack up Dong Ap Bia. On 16 May, the 1/506th moves against Hill 900 and is met by a torrent of NVA fire. The 1/506th will be stymied for several days by the enemy on Hill 900.

**07 19-20 MAY: THE NVA WITHDRAWS**

Unable to continue the fight for Dong Ap Bia against relentless American pressure, the 29th NVA Regiment withdraws over 19-20 May. The 2/501st Battalion of the 101st Airborne and the ARVN 2/3rd Battalion are committed to the battle on 19 May, deploying on the eastern side of Hill 937.

**08 20 MAY: VICTORY**

The soldiers of the 3/187th, 1/506th, 2/501st, and the ARVN 2/3rd make an attack on Hill 937. Soldiers of the 3/187th reach the summit around noon on 20 May. The victorious Americans, having driven off the NVA, themselves abandon Dong Ap Bia only weeks later.

medevac runs extremely dangerous. One remarkably courageous pilot, 20-year-old Eric Rairdon, flew hair-raising missions in darkness and poor weather in his tiny OH-6 Cayuse observation chopper to ferry out the wounded. The gallant Rairdon, nicknamed the 'Saint', continued his flying heroics until he was hit in both legs during a mission on 18 May.

The terrain was a factor in other ways. Because of the narrowness of the paths leading up to the summit, and the threats that NVA bunkers and other fighting positions posed, many of the 3/187th platoons had to be detailed to guard the flanks and rears of advancing American units. This meant that the assault towards the summit could never be as strong as the airborne soldiers would have wished. Simply spotting the enemy amid the jungle foliage was hard. "The canopy was so dense," Lieutenant Boccia said, "that we could barely see a few feet ahead of us".

American firepower, in theory overwhelming, was also of limited help. A report released after the battle stated that American artillery landed 18,262 high-explosive shells on Dong Ap Bia, and that tactical air support had delivered over 1,088 tons of bombs, more than 142 tons of napalm and 31,000 20mm rounds. Though US warplanes flew many sorties against the mountain and artillery continuously lashed the communist positions, their effect was less than what the Rakkasans hoped for, and the deeply entrenched NVA remained immovable. The close proximity of the opposing forces also meant that the Rakkasans were sometimes hit by American munitions. In addition to the Cobra attack on 11 May, several other Rakkasan casualties came about because of friendly fire.

**The struggle continues**

On 15 May, another battalion, 1/506th of the 101st Airborne, started to move against NVA positions on Hills 916, 800 and 900, which lay close to Hill 937. It would take days of fighting for it to finally get into position for an assault on Dong Ap Bia itself, however. On 14 May, an attempt by Charlie Company of the 3/187th to go around the NVA bunkers on Hill 937 was a fiasco. The NVA spotted the Americans and unleashed a hailstorm of fire against them. The Rakkasans' Bravo Company had to forego its own planned attack up the mountain in order to come to the rescue of the torn-up soldiers of Charlie Company. Lieutenant Boccia was stunned when he found them: "My god, my god," he said. "Bodies lay everywhere."

Other factors affected the American advance. The heat was awful, reaching 37.8 degrees Celsius. Rain fell hard and turned much of the mountainside into sucking mud.

Despite the difficulties, the Rakkasans' demanding commander, Lieutenant Colonel Honeycutt, kept pushing them onward, making repeated attacks toward the summit. Some soldiers complained about their hard-driving commanding officer to press reporters, who'd heard about the battle for Hill 937 and had begun showing up in the A Shau. "That damn Blackjack [Honeycutt] won't stop until he kills every damn one of us," one said. It was around this time that the reporters learned that the soldiers had taken to calling Dong Ap Bia 'Hamburger Hill'.





By 18 May, the Rakkasans had taken very heavy casualties, as its companies had done the majority of the fighting. Major General Melvin Zais, commander of the 101st Airborne Division, intended to pull them out and replace them with another battalion, the 2/506th. Honeycutt vehemently objected to this move: "After all the fighting this battalion's been through, after all the casualties we've taken," he told Zais, "if you pull us out now, it will forever be viewed as a disgrace by everyone in the division". Honeycutt insisted that the honour of taking the summit should belong to the 3/187th.

Honeycutt asked for a fresh company as reinforcements, and Zais agreed to give the 3/187th's commander one company from the 2/506th and leave the Rakkasans in the fight. In addition, on 19 May even more reinforcements would be poured into the battle for Hill 937 – the 2/501st of the 101st Airborne and the ARVN 2/3rd Battalion.

On the morning of 20 May, after another punishing air bombardment, the combined strength of the assembled American and South

## **“THE PARATROOPERS WERE FACING TROOPS, PERHAPS TWO PLATOONS WORTH, THAT HAD BEEN LEFT BEHIND TO MAKE A SUICIDAL LAST STAND”**

Vietnamese battalions were thrown at Dong Ap Bia. The summit would fall to the men of the 3/187th. The North Vietnamese opened fire on the Rakkasans with rifles and rocket-propelled grenades. The Americans answered with a storm of rifle fire at the bunker openings. The NVA ducked inside and began rolling grenades down the mountain towards the GIs. But the advantage now lay with the Americans. Most of what remained of the 29th NVA Regiment had already fled to Laos, and the paratroopers were facing troops, perhaps two platoons worth, that had been left behind to make a suicidal last

stand. The Rakkasans blasted whatever fighting positions they found and reached the summit around noon. By late afternoon of 20 May the mountain was fully in American hands.

The cost of seizing Dong Ap Bia was high for the 101st Airborne. 70 paratroopers had been killed in the fight for Hamburger Hill, and another 372 wounded. The losses for 3/187th were especially heavy, with the Rakkasans suffering 39 men killed. The total losses of the North Vietnamese, who were adept at withdrawing with their dead and wounded, is impossible to say for certain, but the Americans afterwards counted 633 dead NVA regular soldiers.

Almost immediately, questions about the cost of taking Hill 937 began to be asked. On a tree trunk, an American soldier had put up a cardboard sign with the words "Hamburger Hill" written on it. Below them on the sign, another GI had acidly written, "Was it worth it?"

### **After the battle**

The bloody struggle for Hill 937 was different from most other combats during the Vietnam

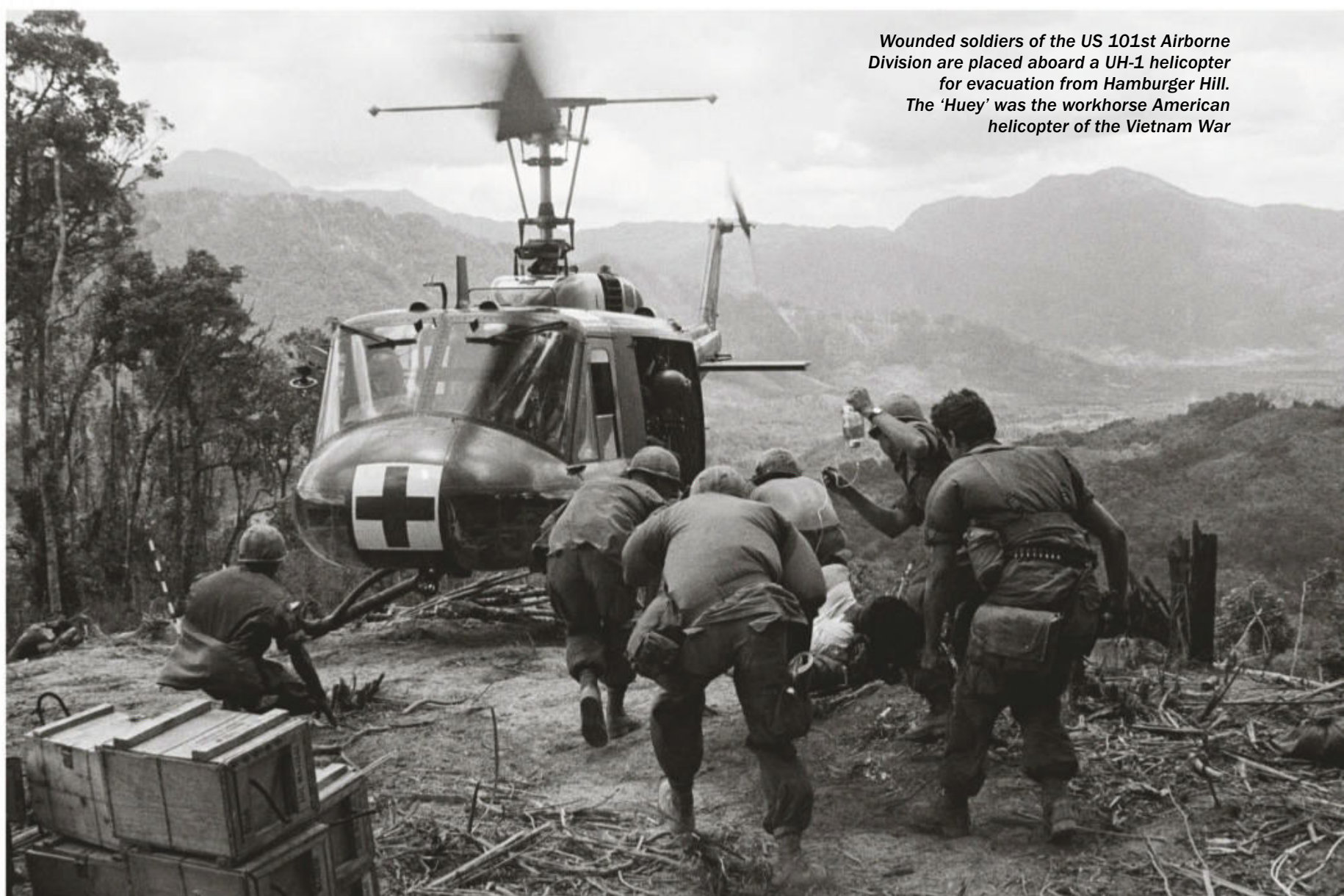


## HAMBURGER HILL

*A derivative of the ubiquitous 'Huey' transport, the Cobra served as a helicopter gunship and provided close air support during the Battle of Hamburger Hill*



*Wounded soldiers of the US 101st Airborne Division are placed aboard a UH-1 helicopter for evacuation from Hamburger Hill. The 'Huey' was the workhorse American helicopter of the Vietnam War*



*A rocket explodes behind an American soldier during the fighting on Hamburger Hill*



War. With a handful of rare exceptions, such as the Battles of Ia Drang, Hue and Khe Sanh, the North Vietnamese and the Viet Cong rarely stood toe to toe with the Americans in a stand-up fight. Most encounters were instead sharp firefights that lasted only a short while, with the NVA melting away before the Americans could bring their immensely superior firepower to bear. Most Americans who were killed in Vietnam died in one of these short, sharp combats, which occurred on a daily basis all over the country.

Hamburger Hill was more akin to the battles for Ia Drang, Hue and Khe Sanh, and since it lasted for ten days, it attracted attention and scrutiny from the American public that tiny firefights, which in aggregate cost many American lives too, ordinarily did not. Despite serious opposition to the war, little criticism in the US had been levelled at the actual tactics that American forces were employing. Hamburger Hill, with its uphill frontal assaults against prepared enemy positions, attracted heavy condemnation.

One of the foremost voices raised against the battle was that of Democratic Senator of Massachusetts Edward Kennedy, brother of the assassinated President John F. Kennedy and a strong opponent of the war in Vietnam. On 19 May, Jay Sharbutt, an Associated Press reporter, filed a story on the costly and lengthy fight for Dong Ap Bia. US soldiers were criticising their own commanders for their tactical decision-making and the heavy casualties they were taking at Hamburger Hill. This spurred Kennedy to speak out. On the floor of the US Senate on 20 May, Kennedy complained that it was "both senseless and irresponsible to continue to send our young men to their deaths to capture hills and positions that have no relation to ending this conflict". With the Paris Peace Conference ongoing, Kennedy said, the US should not be conducting new military operations.

Kennedy would be strongly criticised by Republican senators for second-guessing the military leadership on the ground in Vietnam. *The New York Times* chided the Democratic

senator for criticising military men on tactics when he was himself a civilian and 19,000 kilometres (12,000 miles) from the battlefield.

Yet it was on the same day that Kennedy spoke against the battle that a press report announced that US soldiers had christened Dong Ap Bia 'Hamburger Hill.' At the highest levels, Vietnam policy was changing. As a consequence of the notoriety of the battle and its costliness in lives, US Secretary of Defense Melvin Laird applied tougher restraints on further large-scale operations in Vietnam. President Nixon himself would announce his policy of 'Vietnamization' on 8 June, less than three weeks after the battle's end. US forces would begin withdrawing from Vietnam, and the burden of combat operations would be handed over to the ARVN.

Hamburger Hill had its greatest impact not on the ground in Vietnam but in the minds of American policymakers and voters. In time, the costs of the war would be judged to be too high to continue, just as the cost of taking Hill 937 had been soon after the battle.





*A head and shoulders portrait of Bulfin by James McBey, 1918. Retired Brigadier John Powell OBE's new book on the general, titled Haig's Tower Of Strength: General Sir Edward Bulfin-Ireland's Forgotten General is available now from Pen & Sword Military*



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# HAIG'S TOWER OF STRENGTH

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General Edward Bulfin was Field Marshal Haig's close advisor, Allenby's "staunch fighter", and the most senior Irish Catholic general of WWI

WORDS JOHN POWELL

**C**entenary commemorations of World War I in Britain have been largely fixated on the Western Front; most recently the horrors of Passchendaele and then the Hundred Days Offensive have inevitably captured the public's attention. Often neglected is the extent to which it was a truly world war. One theatre receiving less attention than it deserves is the fighting in the Middle East, in particular the successes of General Sir Edmund Allenby's Egyptian Expeditionary Force against the Turks and their German allies in the final two years of the war.

In Palestine and Syria, he had launched his army against the Turks with a freedom of movement unimaginable on the Western Front, culminating in the audacious Battle of Megiddo in September 1918, in what is now northern Israel. Megiddo is a fascinating early example of blitzkrieg and is regarded as one of the greatest cavalry battles in history. Fought on the biblical site of Armageddon, it spelt the end of the Ottoman Empire, Germany's ally, with the subsequent territorial manoeuvrings of the British and French and its immense implications for the region today.

Providing the battering ram to breach that Turkish front line at Megiddo and allow the mounted squadrons to break through and pursue the enemy was XXI Corps, commanded by an Irish general, Sir Edward Bulfin, a figure largely forgotten today.

Bulfin was in many ways an unusual general for his time. He was not from the normal stable of Irish generals, the 'Anglo-Irish' gentry – in the view of Corelli Barnett, "the nearest thing Britain ever possessed to the Prussian Junker class". He was a Roman Catholic, the most senior one from Ireland in the British Army.

Nowadays it is difficult to comprehend the degree of suspicion against Catholics that

permeated the British establishment at that time. The Scottish Presbyterian Douglas Haig complained in his diary during the Battle of Passchendaele about what he saw as gloomy information coming from the War Office's Director of Military Intelligence, the Jesuit-educated Brigadier General George MacDonogh: "Except that [he] is a Roman Catholic and is influenced by information which doubtless reaches him from tainted sources." Haig's own head of intelligence, John Charteris, wrote to his wife at the same time, "My chief opponents are the Roman Catholic people, who are really very half-hearted about the whole war." Both seemed to ignore the sacrifice of a huge number of Irish Catholic soldiers who volunteered for service.

## **"EDWARD BULFIN WAS IN MANY WAYS AN UNUSUAL GENERAL FOR HIS TIME"**

The Bulfins were an adventurous family, originating from Birr in County Offaly, then 'King's County', many of whom became closely involved in Ireland's struggle towards independence. His first cousin was William Bulfin, a fervent nationalist whose son Eamon, one of the early Irish Volunteers, gained fame by raising the flag of the Irish Republic above the General Post Office in Dublin during the 1916 Easter Rising. Eamon's sister Catalina ('Kid') was equally active as a nationalist and married Sean MacBride, a leading figure in the IRA of the 1930s and later a founding member of Amnesty International.

Edward's father Patrick, however, was a 'Castle Catholic', loyal to the British crown – albeit the term had yet to be coined. A

successful merchant in Dublin, he became lord mayor in 1871 but died in office. Edward, one of eight children, was then just eight years old. Born in 1862, he was sent to the Jesuit public school Stonyhurst in Lancashire – a school where five of its seven Victoria Crosses were won by old boys from Irish families.

After attending Trinity College, Dublin, he gained a commission in the Yorkshire Regiment (later titled the Green Howards) in 1884, by the backdoor route via the militia. The Green Howards were then stationed at the Curragh outside Dublin, and it was not unusual for Irishmen to join English regiments. He served in India as well as leading a column against the Kachin Hills tribesmen in Burma. Later he caught the eye of General Sir William Butler, a fellow Irish Catholic and husband of the famous Victorian war artist Elizabeth Butler, and accompanied him to South Africa as his staff officer in the year before the Boer War.

He earned his spurs during that war as a brigade major, then as column commander. At the Battle of Modder River, when General Methuen's division was pinned down in the open under withering fire from the hidden Boers, his keen tactical eye was instrumental in locating a fordable crossing point and turning the flank of the enemy. By the outbreak of World War I, he was commanding the elite 2nd Infantry Brigade in Aldershot under Haig's command. This was unusual for someone who had not attended Sandhurst, Staff College nor commanded his regiment – and says much for the Edwardian army's recognition of Bulfin's soldierly talents.

His fighting spirit and steady nerve caught Haig's eye during the desperate summer of 1914 in the Retreat from Mons and later at the Battle of the Aisne, where Bulfin's brigade almost managed to take and hold the critical ridge of the Chemin des Dames. In the



## HAIG'S TOWER OF STRENGTH

autumn, leading two critical counterattacks, he helped save the day at the First Battle of Ypres, when the old regular army was nearly destroyed. Promoted to major general in the field for distinguished service, a week later he was seriously wounded during the height of the battle. Haig, who like the rest of the officer corps always saw Bulfin as a loyal and patriotic soldier, wrote in his diary, "A great loss to me as he was a tower of strength at all times."

1915 was a miserable year for Bulfin. With no time to recover from his wounds, he was tasked with raising one of the last regular divisions, the 28th Division, from infantry battalions hastily brought home from India and Egypt. With scant opportunity to acclimatise and train together, Kitchener ordered him to take his division to the Ypres Salient where it then bore the brunt of the German April offensive, during which the enemy launched chlorine gas for the first time. The Second Battle of Ypres was followed by the 'unwanted' Battle of Loos in September. His superior, General Sir Hubert Gough, ordered Bulfin's men to make repeated and futile frontal attacks against the infamous Hohenzollern

Redoubt without adequate artillery support, and his division suffered further dreadful casualties. Unable to get on with Gough – not a rare occurrence – and still suffering from his wounds, he was sent home to rest.

In early 1916 he raised the 60th London Division, a territorial formation later to gain fame in Palestine. This time he was able to bring his new division to a high standard of training with a notable esprit de corps. His career might have then sunk, but after taking his division to the Arras front and on to the backwater of Salonika, it was saved by Allenby's arrival in Egypt in the summer of 1917. Knowing Bulfin from Ypres as a "staunch fighter", Allenby chose him to command a newly formed infantry corps, XXI Corps. Bulfin's star had at last risen.

After the failure of the first two battles of Gaza in spring 1917 to break through the Turkish defences by his predecessor, Allenby decided on a fresh approach. Using XXI Corps to make a feint at Gaza in October, the bulk of his force carried out a bold right-flanking attack inland at Beersheba. Throwing the enemy into

disarray, Allenby ordered Bulfin to provide the left hook and breach the Turkish line at Gaza. While Allenby's plan failed to encircle the Turks as intended, the enemy were on the back foot from then on. It cemented Bulfin's reputation as a field commander with a "fiery determination" and it was no surprise that Allenby chose him to lead the bitter fighting through the harsh hills to reach Jerusalem that December.

The following year, many of Allenby's experienced units were hastily withdrawn to reinforce the Western Front after the German Spring Offensive. Bulfin was confronted with the task of retraining his corps with newly joined Indian troops. By the summer, Allenby had sufficient forces and a solid jumping-off position to launch his daring and imaginative plan to overwhelm the shaken Turks. It was the opposite of the Third Battle of Gaza; this time, he succeeded in foxing the enemy into thinking he would attack across the Jordan, supported by T.E. Lawrence's Arab army, while secretly building up a formidable force under Bulfin on the coast. Marshalled behind Bulfin was the largest cavalry force of the war, 94 squadrons,

**Right:** Officers of 2nd Battalion The Green Howards in Bangalore, India, in 1890. Lieutenant Bulfin is seated on the ground, front right





ready to be unleashed as soon as Bulfin provided the battering ram to make the breach at Megiddo. This was hard infantry fighting, with much in common with the Hundred Days on the Western Front. Many of the techniques of all-arms cooperation, especially the use of artillery and air power, learnt from that front, now had its impact. In little over a month after the battle opened, Allenby's forces had destroyed three Turkish armies and advanced over 560 kilometres (350 miles).

Allenby was one of the few generals of the Great War who understood the operational level of command – and had the opportunity to exercise it. He understood that deception, overwhelming power at selected points and deep penetration, allied to speed and dexterity, led to the enemy's strategic paralysis and defeat. Megiddo, Allenby's greatest and final triumph, was more than a cavalry success. It was Bulfin's achievement as an infantry commander, "given the key role at Megiddo," as the official historian Cyril Falls noted, to "open the door" for the mounted troops to overwhelm the enemy.

After the war, Bulfin had the unpleasant task of putting down the 1919 uprising in Egypt – with a firm and, by modern standards, ruthless hand – before refusing Churchill's order in 1920 to command the police in Ireland during the Irish War of Independence. He was not prepared to order policemen to fire on his fellow countrymen. This refusal crushed any chance of further advancement, and his last appointment was to Iraq and India to decommission surplus stores. There he met Gertrude Bell, the 'Queen of the Desert', whose brother Maurice was a friend of Bulfin's. He retired in 1926 as a full general and devoted himself to his regiment, as colonel of the Green Howards, having succeeded in getting its informal title recognised officially. He died in Bournemouth in August 1939, two weeks before the outbreak of WWII.

Edward Bulfin, an admirable fighting soldier who never lost his Irishness, was typical of that lost class of Irish Catholics, loyal to the British Empire as well as to his country of birth – and he deserves to be better known and remembered, both in Britain and Ireland.



***Inset, right:** Bulfin takes his last salute as colonel of the Green Howards, at Portland in 1934*

***Below:** 2nd Battalion The Green Howards at the Menin Crossroads, Ypres, October 1914*

**"BULFIN HAD THE UNPLEASANT TASK OF PUTTING DOWN THE 1919 UPRISING IN EGYPT – WITH A FIRM AND, BY MODERN STANDARDS, RUTHLESS HAND"**





The image features a dynamic battle scene from the game War Thunder. In the foreground, a main battle tank is shown firing its main gun, with a large, bright explosion and muzzle flash visible. The tank has a blue and grey camouflage pattern. In the background, other military vehicles, including a self-propelled artillery piece and a tank destroyer, are engaged in combat on a dusty, hilly terrain. The sky is filled with smoke and fire. The War Thunder logo, which includes a stylized tank silhouette and the words "WAR THUNDER" in a bold, metallic font, is positioned in the upper left corner.

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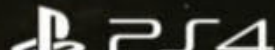
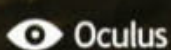
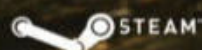
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# CENTURION

## MAIN BATTLE TANK

WORDS MIKE HASKEW

### FIREPOWER

With a rate of fire of ten rounds per minute, the 105mm L7 rifled gun is considered by many experts to be the finest tank weapon ever produced in the United Kingdom.

The British Centurion main battle tank is remembered as one of the best all-round designs of the Cold War era

**D**uring World War II, British forces suffered grievous losses at the hands of superior German armoured fighting vehicles. German tanks typically outgunned Allied types, their armour protection was superb and they were capable of destroying Allied tanks from distances beyond the range of most British and American armament. In 1943, the War Ministry issued specifications for a British tank that could take on German armour and win. The result was the Centurion. However, the new model reached continental Europe days after the conflict ended. Therefore, the Centurion became an icon of the Cold War, one of the best all-around tank designs to emerge from the post-World War II period.

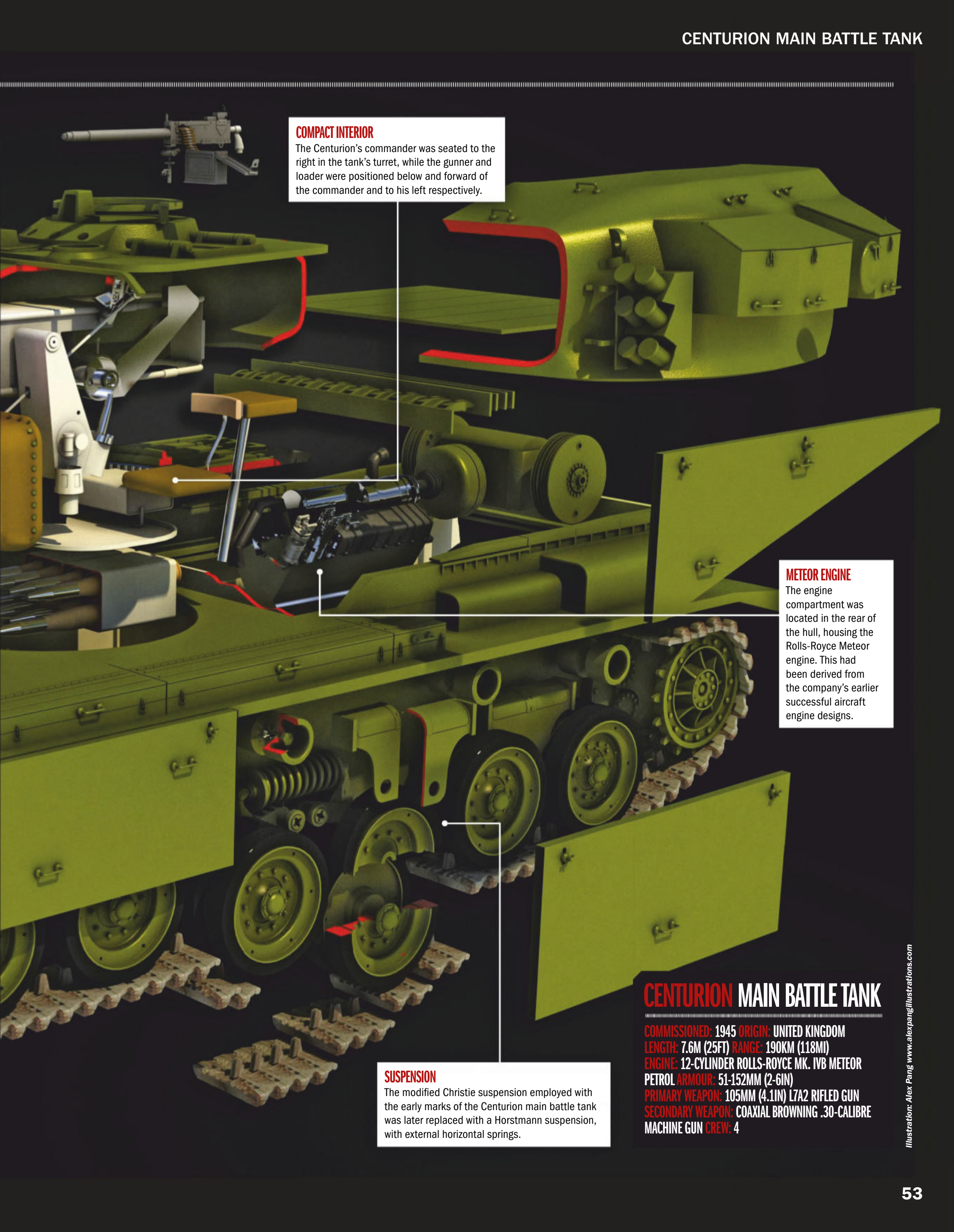
The first Centurions reached units of the British Army in 1945, and during a production run of two decades more than a dozen marks or variants were produced by the Royal Ordnance Factory, Vickers, Leyland and other contractors. A total of 4,423 Centurions were built, and many were actually placed in service with the Israeli Defense Force. The Israelis made several modifications to the Centurion, including a larger engine and greater fuel and ammunition capacity. The tank's service life extended beyond 50 years, and it was largely replaced in British service by the Chieftain in the 1980s.

### DRIVER

The Centurion's driver was positioned in the tank's bow and steered the vehicle with levers. He operated the hull-mounted machine gun in some variants.

**"THE CENTURION BECAME AN ICON OF THE COLD WAR, ONE OF THE BEST ALL-AROUND TANK DESIGNS TO EMERGE FROM THE POST-WORLD WAR II PERIOD"**





**COMPACT INTERIOR**  
The Centurion's commander was seated to the right in the tank's turret, while the gunner and loader were positioned below and forward of the commander and to his left respectively.

**METEOR ENGINE**  
The engine compartment was located in the rear of the hull, housing the Rolls-Royce Meteor engine. This had been derived from the company's earlier successful aircraft engine designs.

**SUSPENSION**  
The modified Christie suspension employed with the early marks of the Centurion main battle tank was later replaced with a Horstmann suspension, with external horizontal springs.

**CENTURION MAIN BATTLE TANK**  
**COMMISSIONED:** 1945 **ORIGIN:** UNITED KINGDOM  
**LENGTH:** 7.6M (25FT) **RANGE:** 190KM (118MI)  
**ENGINE:** 12-CYLINDER ROLLS-ROYCE MK. IVB METEOR  
**PETROL ARMOUR:** 51-152MM (2-6IN)  
**PRIMARY WEAPON:** 105MM (4.1IN) L7A2 RIFLED GUN  
**SECONDARY WEAPON:** COAXIAL BROWNING .30-CALIBRE  
**MACHINE GUN CREW:** 4





British soldiers hitch a ride atop a Centurion as it fords a small stream. The Centurion emerged during the Cold War era as a fine embodiment of new armoured warfare doctrine

## DESIGN

Considered one of the most successful tank designs of the Cold War era, the Centurion initially utilised a modified Christie suspension, long a standard, but this was followed with the introduction of a Horstmann suspension utilising external horizontal springs. The hull was welded and the armour sloped to enhance protection, while turret armour was upgraded to 152 millimetres (six inches). Ponderously heavy at 52 tons, the Centurion managed only low speed, and its range was somewhat limited. Still, the overall design was sound, and these shortcomings were offset by performance that exceeded expectations.



A female Israeli tank driver pictured in 1978. The Centurion saw extensive service in Israel

Right: The Horstmann suspension that utilised a system of external horizontal springs replaced the original modified Christie suspension introduced with early marks of the Centurion





## ARMAMENT

The earliest operational Centurions were armed with the QF 17-pounder (76.2mm/three-inch) antitank gun modified to fit inside its turret, and later the 20-pounder (84mm/3.3 inch). However, beginning with the Mk. 5, the primary weapon became the famed 105mm (4.1-inch) L7 rifled gun. Developed and built by the Royal Ordnance Factory, the L7 is considered the finest tank gun ever produced in the UK. Developed in the 1950s, it was first installed on the Centurion at the end of the decade. Its rate of fire is up to ten rounds per minute.

*Smoke grenade launchers are prominently visible attached to the turret*

*The 105mm L7 gun was the second upgrade of the primary weapons system of the Centurion. Originally, the tank mounted the QF 17-pounder, and then the 20-pounder, followed by the L7*

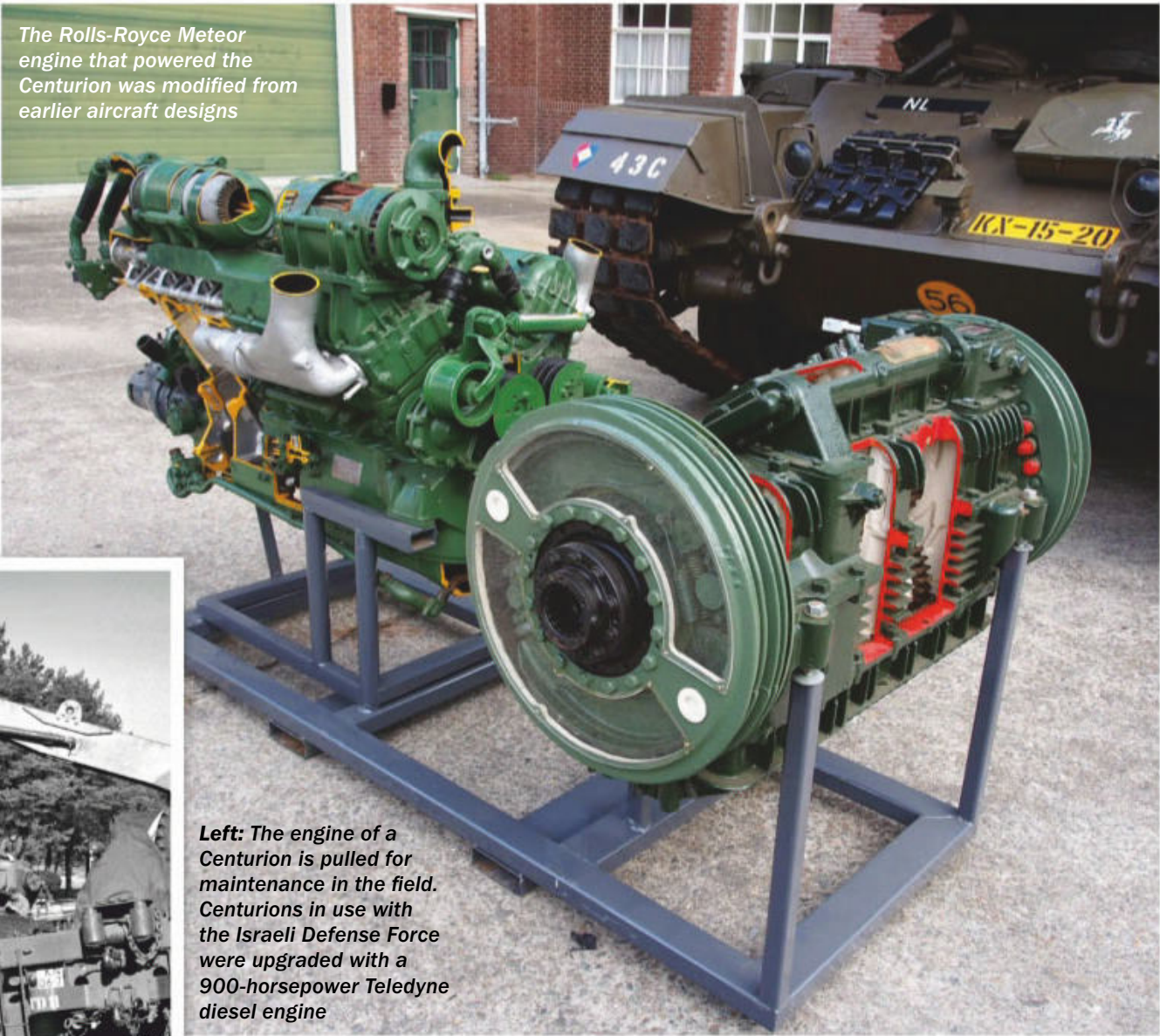


**“THE L7 IS CONSIDERED THE FINEST  
TANK GUN EVER PRODUCED IN THE UK”**



ENGINE

The Rolls-Royce Meteor engine was a development of the company's famous Merlin aircraft engine and was adapted for use in tanks by a team headed by engineer W.A. Robotham with the Chassis Design and Development Group at Clan Foundry, Belper. The engine entered production in 1941, and thousands were completed before the run ended in 1964. Powering the Centurion, the 12-cylinder petrol engine produced 650 horsepower and a top speed of 35 kilometres (22 miles) per hour. The Israeli Defense Force upgraded its Centurions with the 900-horsepower Teledyne Continental AVDS-1790-2R diesel engine.



The Rolls-Royce Meteor engine that powered the Centurion was modified from earlier aircraft designs



Left: The engine of a Centurion is pulled for maintenance in the field. Centurions in use with the Israeli Defense Force were upgraded with a 900-horsepower Teledyne diesel engine

INTERIOR

The tight, constricting interior of the Centurion was typical, including three compartments with the driver in the bow, viewing forward through two periscopes and with ammunition stored to his left. The driver operated the hull-mounted machine gun in some marks and steered with levers set slightly forward. The commander was seated on the right side of the turret under a rotating cupola above the fighting compartment. The engine compartment was to the rear. The gunner was situated below and in front of the commander, while the loader serviced the main gun from a position to the commander's left.

Below: Typical of most tank designs, the interior of the Centurion was cramped but functional



One of the challenges facing the Centurion was its 52-ton weight, which limited mobility. However, this shortcoming was more than offset by the main battle tank's other, more positive, attributes



## SERVICE HISTORY

ARRIVING TOO LATE FOR WWII, THE CENTURION HAS STILL SEEN ACTION ACROSS THE WORLD

The Centurion developed a reputation as perhaps the foremost tank of the Cold War. While its weight limited the tank's deployment during the Korean War, its performance was exceptional. Many observers considered the Centurion the 'universal tank'. In Korea, the tank earned high praise while in use with the 8th King's Royal Irish Hussars, covering the

retreat of the 29th Infantry Brigade at the Battle of the Imjin River.

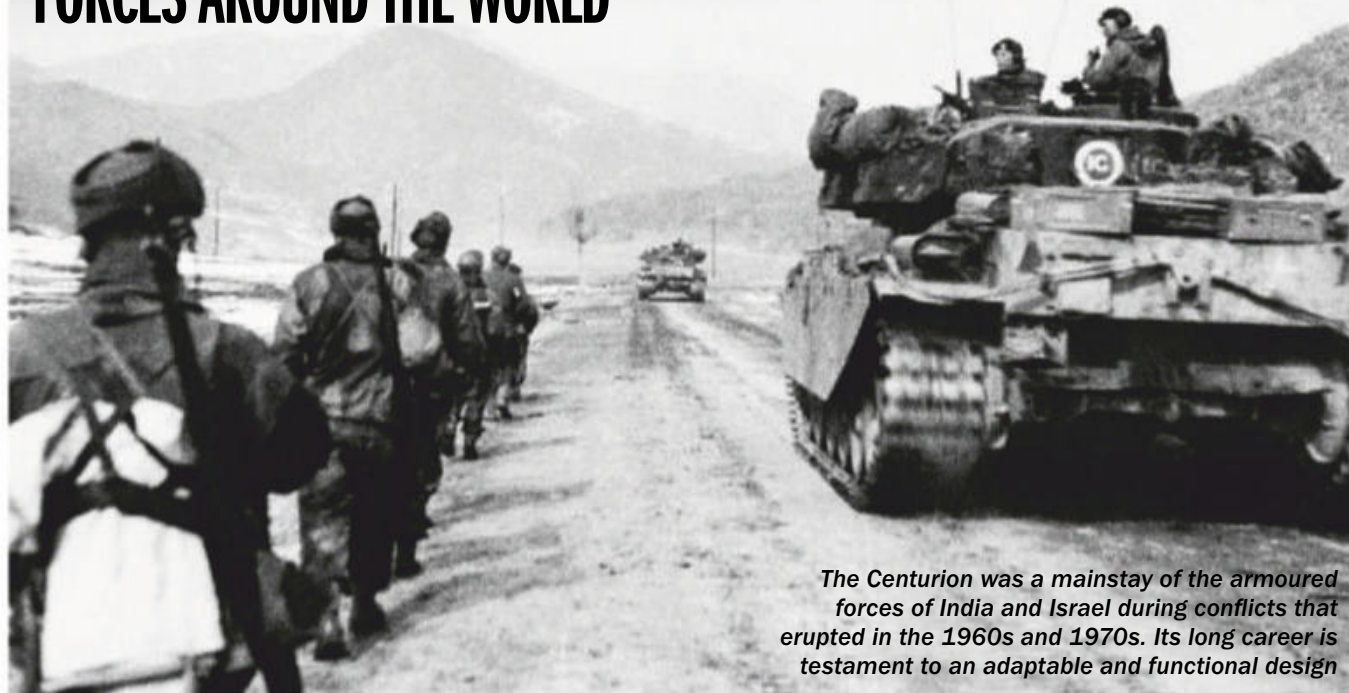
During the Vietnam War, 58 Centurions were deployed with the Royal Australian Armoured Corps, and Centurions of the Indian army fought US-made Pakistani army tanks during conflicts in 1965 and 1971. Israeli Defense Force Centurions performed admirably against Soviet and US-made tanks of opposing Arab forces during the Six-Day War in 1967 and the Yom Kippur War of 1973. Into the 1980s, the Israelis deployed the Centurion in Lebanon.

The service life of the Centurion spans well over half a century, and some remain in service today with armed forces around the world.



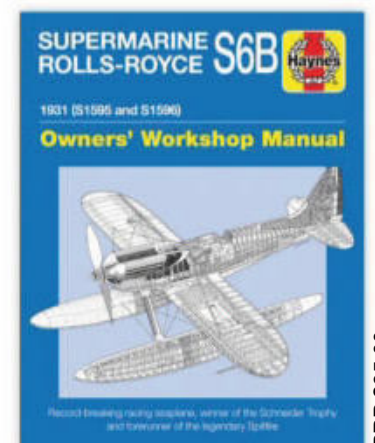
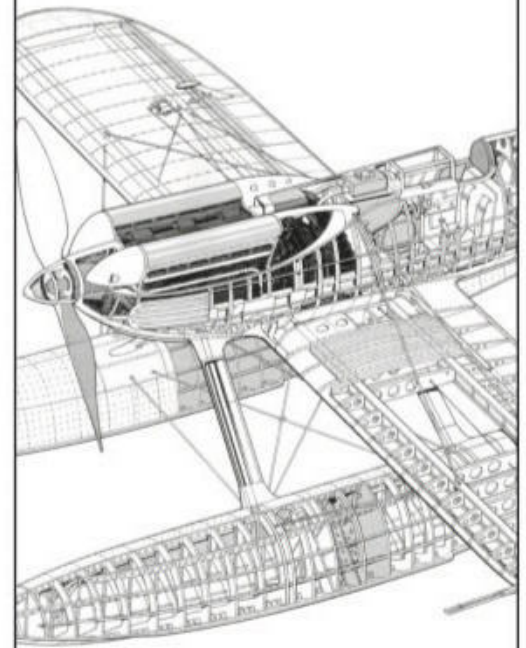
*Soldiers cross a river aboard a Centurion over a recently constructed bridge. The Centurion was deployed with success in Korea and Vietnam. This tank is emblazoned with a white star of US forces*

**"THE SERVICE LIFE OF THE CENTURION SPANS WELL OVER HALF A CENTURY, AND SOME REMAIN IN SERVICE TODAY WITH ARMED FORCES AROUND THE WORLD"**

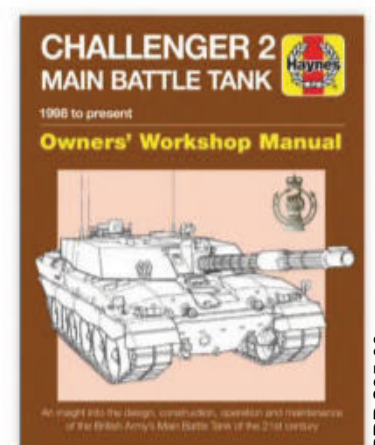


*The Centurion was a mainstay of the armoured forces of India and Israel during conflicts that erupted in the 1960s and 1970s. Its long career is testament to an adaptable and functional design*

Images: Alamy, Getty, Alex Pang



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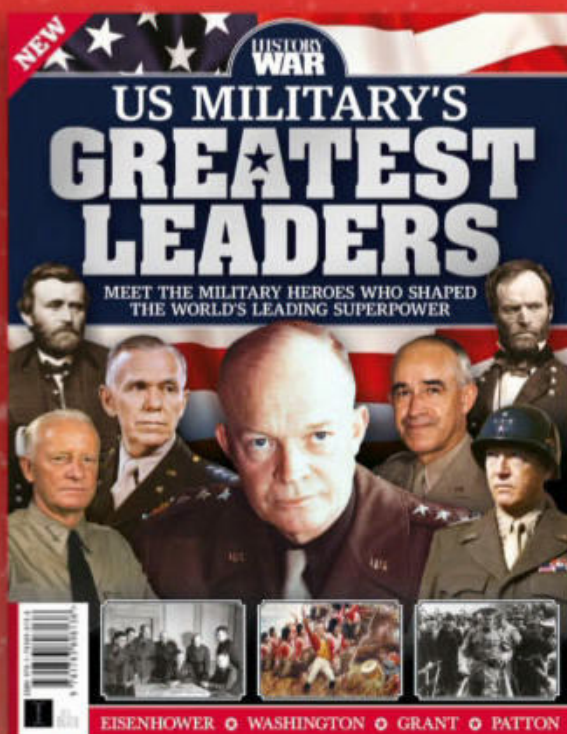




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*Left: Ruth Bourne pictured in her Wren uniform during WWII. The band on her hat reads, 'HMS' but no ship is named, which was a subtle indication of her intelligence work*

# WOMEN OF BLETCHLEY

## PART I: THE BOMBE OPERATOR

WORDS TOM GARNER

In the first of a two-part series, Ruth Bourne reveals how she operated the famous codebreaking machine developed by Alan Turing and Gordon Welchman

**A**lthough it was shrouded in secrecy for decades, the codebreaking work of Bletchley Park is now recognised as an extraordinary wartime achievement. Prodigiously talented cryptanalysts devised various methods to decipher Axis communications. This produced vital intelligence to aid military operations. Their work shortened the war by two to four years and saved approximately 14 million lives.

To achieve this astonishing success, Bletchley Park industrialised codebreaking to unprecedented levels by developing machines such as the Turing-Welchman 'Bombe' and the world's first electronic computer 'Colossus'. These devices were built in their hundreds and required many people to operate them.

By 1945, almost 10,000 people worked for the Bletchley Park organisation. 75 per cent of these employees were women, and of those, 60 per cent were uniformed personnel. This included Ruth Bourne, who was a young recruit from the Women's Royal Naval Service (WRNS or 'Wrens'). Bourne was only 18 years old when she worked at Bletchley's outstations, but she had a responsible job as a Bombe operator. Now a lauded but modest veteran, Bourne

describes her secret role operating one of the most technologically complicated but decisive machines of WWII.

### "Breaking German codes"

Born in 1926, Bourne joined the Wrens in June 1944 shortly after she turned 18, although her reasons for volunteering were partly aesthetic. "I wanted to join the services, and one of the appeals was the uniform, which was designed by Hardy Amies. The other uniforms were just ordinary men's jackets off the peg, and I didn't even like the colours! The Wrens were much more stylish. My aunt was one of the first women doctors in the army, and she said that the Wrens always had the best time when they were off duty."

After joining the Wrens as a rating, Bourne's training was very different from the job for which she would eventually be chosen. "The basic training was nothing to do with Bletchley. We went up to Scotland and you learned naval terminology, how to scrub floors, get up early and salute, etc. We were then given uniforms and categories before being sent down to Eastcote via London."

Bourne and six other Wrens were assigned to 'Special Duties X', which led to a fateful interview. "It was with a female petty officer



*Bombe machines were a key part of the work to decipher Enigma codes during WWII*







and she said, ‘The work you will be doing is highly secret. You’ll be asked to sign the Official Secrets Act and you won’t be able to tell anybody what you did, saw or heard. The hours are antisocial and there will be no promotion. After your training you’ll get a slightly higher specialised pay and you’ll be working within 50 miles [80 kilometres] of London at all times.’

Bourne willingly volunteered for this clandestine role. “My ears pricked up because Birmingham was very boring and I always wanted to live in London or have access to it. We all said yes and signed the Official Secrets Act before the petty officer said, ‘All I can tell you is that we are breaking German codes’. That’s all I ever heard.”

Now a member of ‘Ultra’, the Government Code and Cypher School (GC&CS) designation for British military signals intelligence, Bourne had joined the high-level decryption team that came to be collectively known as ‘Bletchley Park’. She believes she was recruited for her linguistic skills: “It was possibly because I was very interested in languages. I had done French, German and Spanish and wanted to be a journalist. I hadn’t done them to university level but I had got an entrance to London University and received a lot of distinctions when I did

“BY THE END OF THE WAR OVER 200 BOMBES WERE OPERATED BY 1,676 WRENS AND 263 MALE RAF PERSONNEL”

my school certificates.” Despite her language skills, Bourne trained to operate an advanced machine to break Axis codes: the Bombe.

A “weird codebreaking factory”

By the end of the war over 200 Bombes were operated by 1,676 Wrens and 263 male RAF personnel. After signing the Official Secrets Act, Bourne was deployed to Bletchley’s outstations at Eastcote and Stanmore. At Eastcote she spent a fortnight training on Bombes, which were housed in separate wings that were named after occupied Allied countries. From Bourne’s perspective, Eastcote was “like working in a weird codebreaking factory. You went from one machine to another in a large room, which was a sort of ‘Bombe bay’. You saw all these machines around you but you just took it for granted.”

Two Wrens were assigned to each Bombe at any one time, although Bourne was unaware of Enigma’s existence. “I never heard the word ‘Enigma’. We understood ‘No questions’ so I didn’t even bother to ask.” Nevertheless, finding the key settings of the German cipher machine was central to the Bombe’s purpose, as Bourne later discovered: “The Enigma operator chose three out of five scramblers with moveable alphabet rings on the side of each. Under these was a 26-letter plug board where he could join up ten sets of letters. These settings were changed every 24 hours, so if you permutated this and other variations it gave about 159 million million million possible Enigma settings.”

Against such odds of finding the ‘key’ for the day, the Allies had developed the Bombe to help decrypt Enigma in rapid time. “It could replicate up to 36 possible Enigma settings in 15 minutes, and there were three ‘wheels’ that we put on to replicate the scramblers. They were technically ‘drums’ but we called them wheels. We fixed them onto the machine in a certain way before setting it off, and we also plugged it up at the back in the replica plug board. When the machine stopped we wrote down the ‘answers’.”

A MACHINE OF GENIUS

THE BRAINCILD OF VISIONARY MATHEMATICIANS, THE BOMBE WAS A PRECURSOR TO THE MODERN COMPUTER AND CRUCIAL TO ALLIED VICTORY

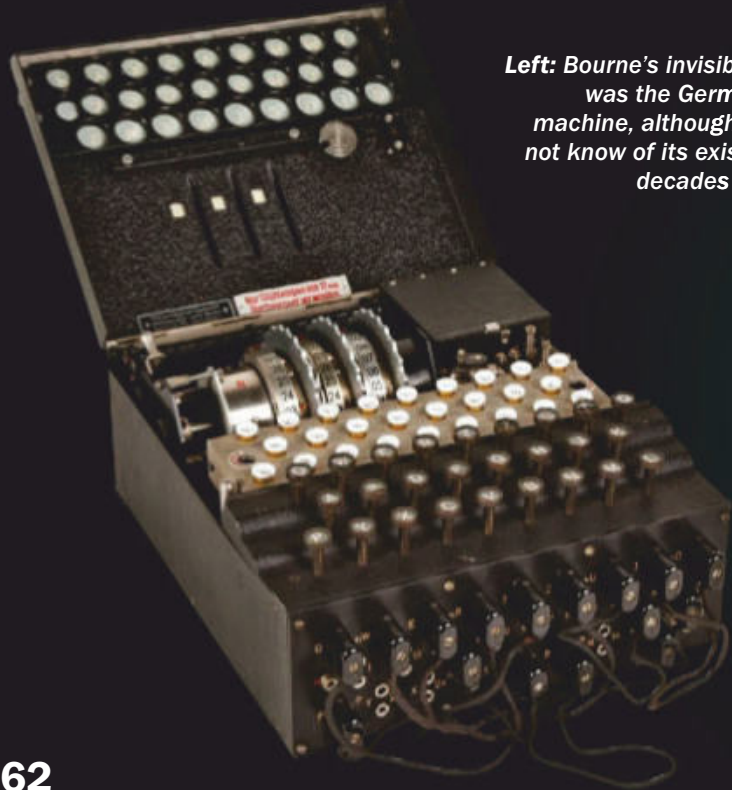
Based on a previous Polish deciphering device, the Bombe was initially designed by Alan Turing and later refined by Gordon Welchman. With the ability to assist in the breaking of 3,000-5,000 intercepted messages each day, the brilliance of Turing’s design was that the machine compared patterns of the encrypted message (‘cribs’) and a known portion of plain text to break the key. Additionally, Enigma could not code a letter as itself, so it inadvertently aided the Bombe. Therefore, encryptions could be lined up with a crib until no letter lined up with itself.

The Bombe would mimic Enigma’s rotors and plug board and check 17,500 possibilities before it found a match and stopped. A checking machine would then process the match before the relevant information was passed on to codebreakers to fully decrypt. Using this system, the Bombe ultimately helped to crack 2.5 million messages by the end of the war.

The first Bombe was operational from August 1940, and 211 were eventually built. Their impact was sensational in intelligence-gathering from land, sea and air campaigns. Bletchley Park’s staff were able to decode quickly and pass on information with enough time to be acted upon. This had a dramatic effect on Allied success, and Enigma decrypts from

the Bombe were crucial to the outcomes of decisive victories such as the Second Battle of El Alamein and D-Day, among many others. These machines industrialised codebreaking and were so successful that the Germans never knew that the ‘unbreakable’ Enigma had been cracked.

Below: Each Bombe was 2.1 metres [six feet ten inches] wide, two metres [6 feet seven inches] tall, weighed one ton, and had 19 kilometres [12 miles] of wiring and 97,000 different parts



Left: Bourne’s invisible nemesis was the German Enigma machine, although she would not know of its existence until decades after WWII

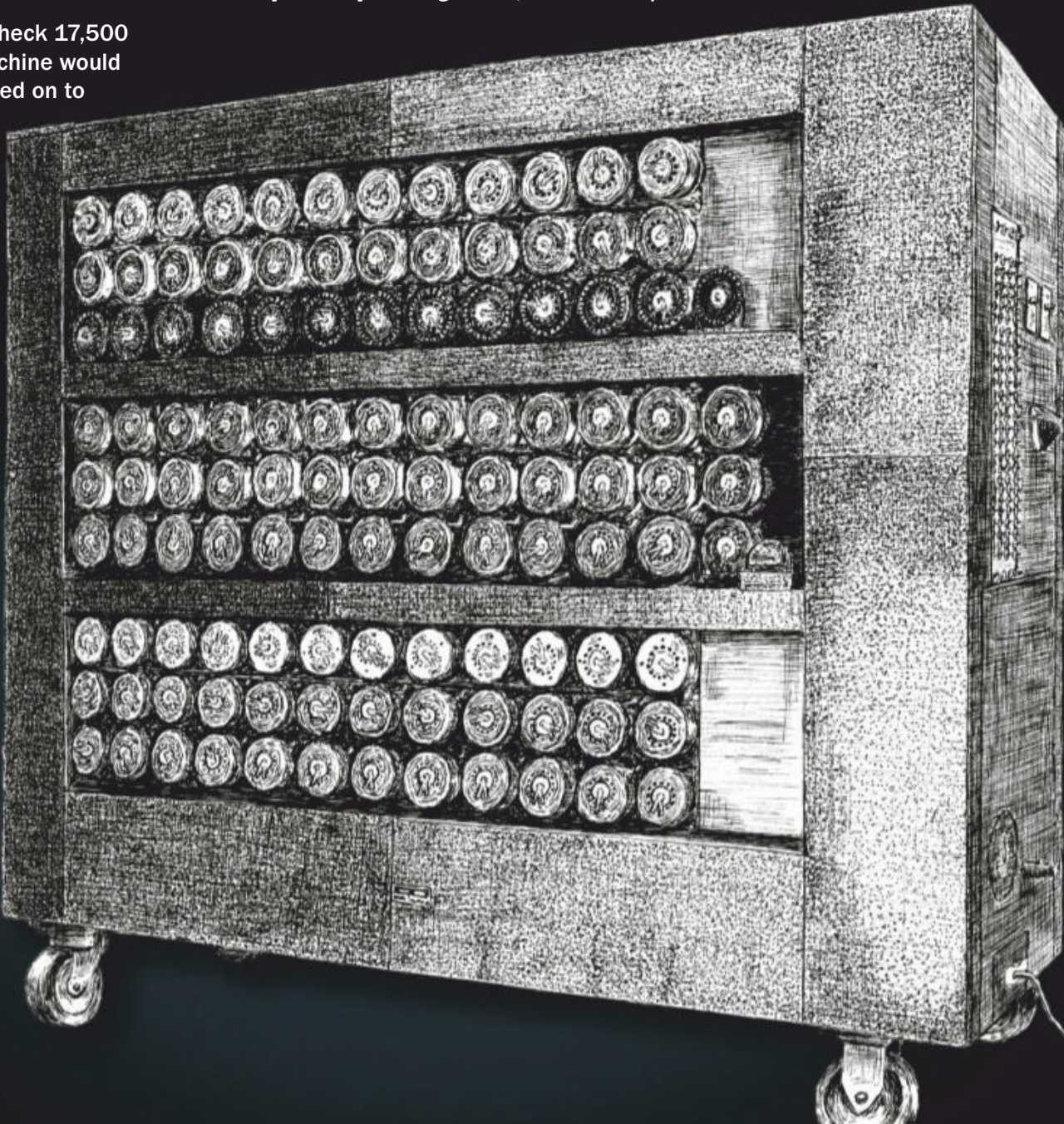


Illustration: Dawn Monks, dawnmonksillustrations.co.uk



Preparing the Bombe for a key searching 'run' was a delicate process. "Because the three wheels replicated the scramblers they had to be very accurately set. They had four rows of 26 wire brushes at an angle and 17-19 strands of wire in each brush. One brush could not touch another, so we had to tweeze the used ones out while the machine was running because we didn't want to waste time. You couldn't turn the drum in the wrong direction otherwise you could cause short circuits."

Working behind the Bombe was vital so that instructions sent by Bletchley Park could be accurately carried out. "You went around the back with your checking partner and joined up the plugs that replicated what were in the front of the Enigma. This was because the 'Stecker' plug board on the machine was changed every day. You did all this by following a vitally important worksheet called a 'menu'. This was constructed by the codebreakers at Bletchley, which represented their projections of what the Enigma key settings might be."

Although Bourne was not involved in the mathematical aspects of codebreaking, her operational diligence was important. "The information was given to us because we didn't and couldn't work it out. However, it was beaten



*RAF Eastcote, pictured from the air in 1945. This government site was an outpost for Bletchley Park's codebreaking operations*

into our brains that we had to be accurate. I was told that 100 per cent accuracy was no good: it had to be 150 per cent."

Once the necessary preparations were complete the machine would be started for a 15-minute run to find the key to the coded messages. "You pressed the starter button, and while it was running you filled in a log sheet. At the end of a run you would take some of the wheels off and put on others according to your instructions. You took off the used wheels while the next run was going and tweezed out any wires touching each other,

before putting them back onto a wall rack. You also logged down how the machine behaved during the previous run."

When the machine stopped, Bourne's next job would be to write down information that might indicate that an intercepted message key had been found. "You wrote the information about the wheel orders, which were the equivalent to the three Enigma scramblers and also the letters on another set of wheels. These were related to the letters chosen by the German operator before he dropped his scramblers into his machine."

More detailed information about the message was needed for the cryptanalysts at Bletchley. "You went to the side of the Bombe where there was a 'letter box', where three little rows of the alphabet going from A-Z had a little bale in each window. The machine was telling you which rows of wheels were of interest: the top, middle or bottom. You wrote that down because they were the most important bits of information the mathematicians were looking for. It would tell them if the code setting on the Enigma machine was the right or wrong one."

The key to the coded message was then given additional scrutiny on a 'checking machine'. "You would get the information up

**"THESE MACHINES INDUSTRIALISED CODEBREAKING AND WERE SO SUCCESSFUL THAT THE GERMANS NEVER KNEW THAT THE 'UNBREAKABLE' ENIGMA HAD BEEN CRACKED"**



on your machine from the same ‘menu’ that was on your Bombe. The three wheels were put on and everything was checked. It was very mathematical, and the checking machine would look for strong possible letter pairs relating to the Enigma plugboard, among other factors. ‘A’ for example might be connected to ‘Z’ for 24 hours, and if we could find one combination others might be worked out that might break the code for that day.”

Speed was now essential in order to get the information decoded. “You’d run like a lunatic from your machine all the way to the bottom of these very large rooms. It was a straight line with long barrack-like rooms with 10-12 Bombes in each one. There was a lot of noise but when you got a message you’d have to go along to the end of one of these off-shoots and hand in your information.”

“If the checking machine had found a good ‘Stop’ on the Bombe then Bletchley would be immediately informed. “There was a red telephone, which was a voice scrambler, but we didn’t say, ‘I think there is a good answer to a code’ etc. The Bombe bay we were in was called ‘Norway’ and each machine was named after a Norwegian town or village. For example I would say, ‘This is Norway. I have a good Stop for you on Stavanger.’ Then you would describe the ‘Stop’ on the Bombe.”

Once Bourne’s code was handed over to Bletchley it would be analysed on one of the park’s resident Enigma machines. “If any kind of clear German came out it would possibly be the answer to all messages in that particular warzone up until midnight, when it would be changed again.”

**“IF YOU GOT A CODE WRONG THAT WAS 24 HOURS WASTED, MAYBE HUNDREDS OF PEOPLE DYING AND ALL THOSE CLEVER PEOPLE WOULD HAVE BEEN WASTING THEIR TIME”**

A code confirmation was known as a ‘Good Stop’ but as Bourne describes, “it might have been the correct code but the Enigma machine could also give you two or three other ‘Stops’ in each 15-minute run.” If Bourne’s intercepted message was finally confirmed as a ‘Confirmation Stop’ she would be briefly informed. “They wouldn’t phone you back but the petty officer in charge of the watch would come up and say, ‘Job up. Strip.’ This meant pulling off the wheels on the Bombe and pulling the plugs out on the back, which were equivalent to the Stecker plugs. You then started all over again with new wheels. It was very organised.”

Although Bourne routinely performed this complicated operation every day she felt gratified when her intercepted messages were confirmed. “You never knew what had been in the message but you felt very pleased that you hadn’t made any mistakes. It was also a matter of luck depending on which wheel orders you’d got, but you did feel good if you heard ‘Job up’.”

**Pressure, burnout and secrecy**

Because of the immense importance surrounding Bletchley Park’s operations, Bourne was never complacent about her work. “It was very serious. If you got a code wrong that was 24 hours wasted, maybe hundreds of people dying and all those clever people would have been wasting their time. It was like being a link in a chain or the beginning of a pathway, and that’s why we were going for 150 per cent accuracy.”

The pressure of operating the Bombe was also compounded by gruelling shifts. “During the first week in a month you would work from 8am-4pm, the second week 4pm to midnight, midnight to 8am during the third week and by the fourth week there was an extra shift, which was quite difficult. You worked in Block B, but in Block A, where you ate and slept, you were considered an ordinary Wren again. You still had to do other duties like fire watching and washing up, whether you were tired or not.”

Bourne recalls that the relentless working hours were exhausting: “It was like having constant jet lag. Sleeping was difficult and you’d have indigestion from having your ‘lunch’ at midnight and having your breakfast at 8am when you came off, before going to bed. 72 of us slept on double bunks in a ‘cabin’ at Eastcote that was more like a barracks with concrete barrier walls. The curtains were cheap and thin so if you went to bed at 10am it was very hard to sleep with the light coming through.”

Eventually, the fatigue took its toll. “A lot of us were knackered and suffered from burnout, including



**Above:** A Bombe pictured at Bletchley Park in 1943. There were different variants of the machine that were given nicknames to reflect the bulky size, including ‘Jumbo’, ‘Ogre’ and ‘Giant’

**Right:** Bourne wearing the Bletchley Park commemorative badge and her newly awarded Légion d’honneur, 12 December 2018. She says that receiving the French award was “absolutely amazing”

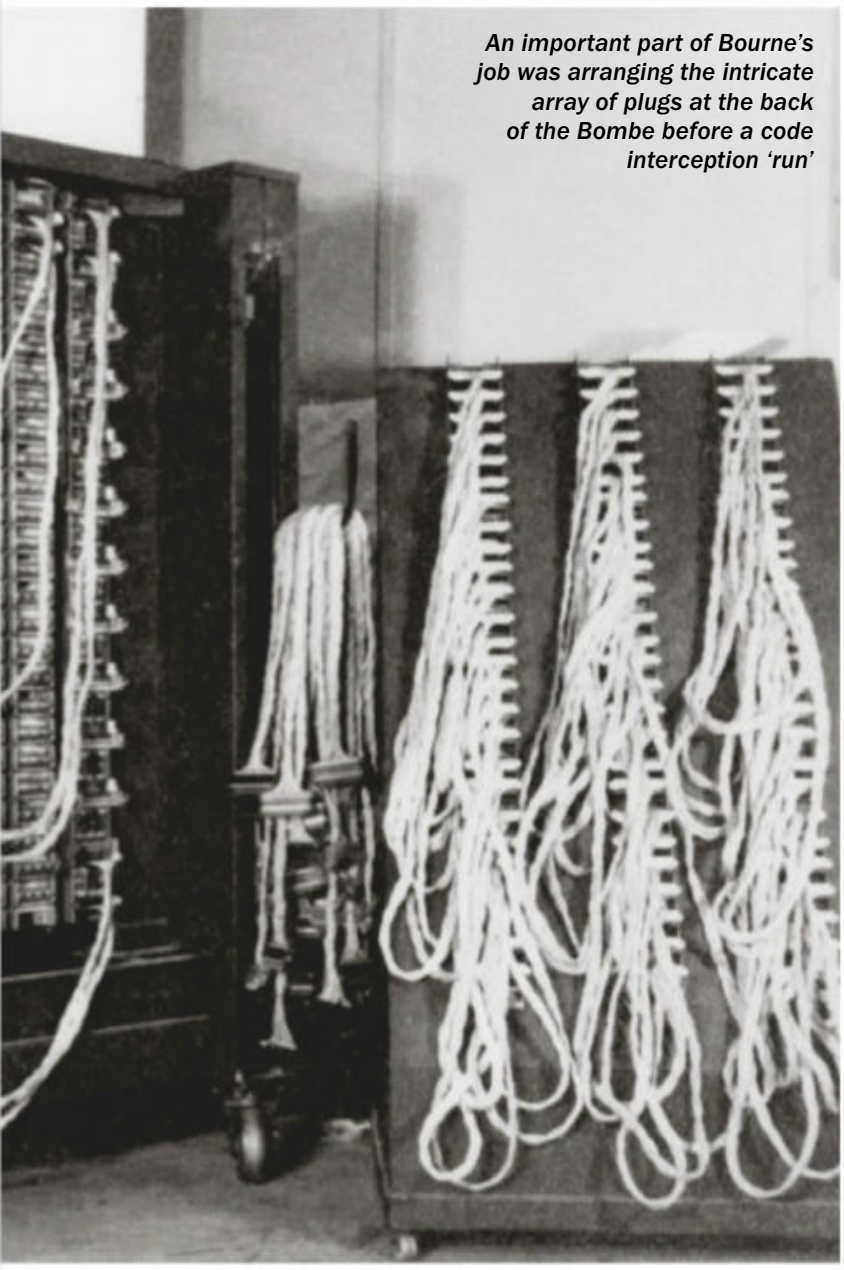


myself. I initially didn't know what it was and only knew I didn't feel well. When I went to sickbay and the doctors asked what the matter was I just said, 'I don't know' and started crying. They put me to bed for four days and my mother came down from Birmingham and brought me what seemed like half a chicken! They gave me a week's leave, which was very unusual, but I bounced back."

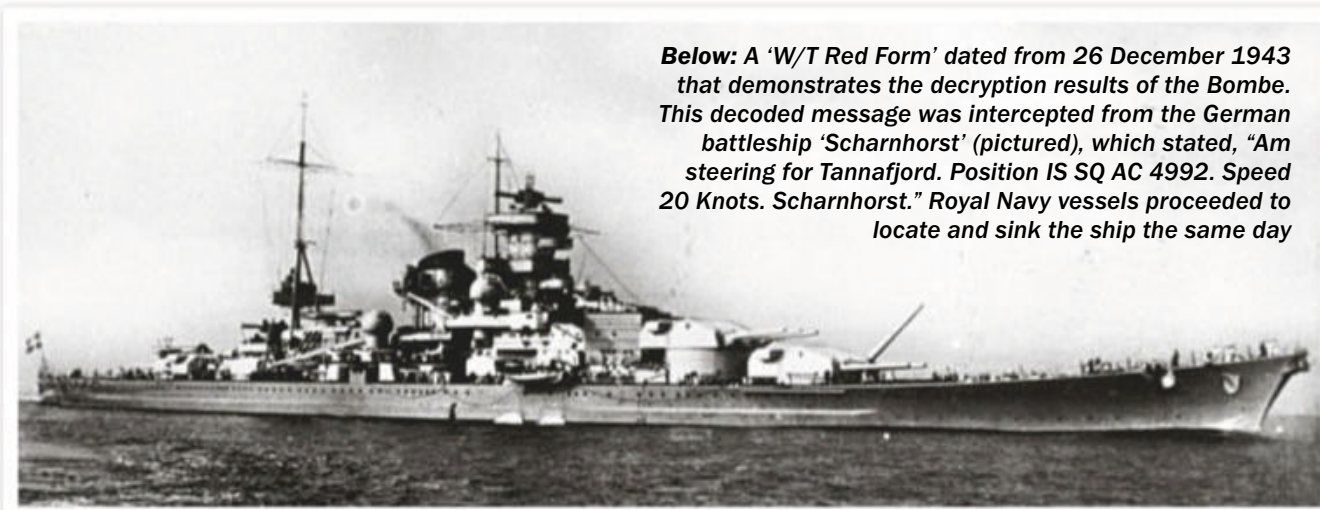
Despite her mother's visit, Bourne could not tell her about her work. "She was very miffed and would say, 'You can tell me, I'm your mother' but I thought, 'Yes, but it would be around Birmingham in five minutes flat'. She hadn't signed the Official Secrets Act but I had, and 'nice girls' like me did what they were told."

Maintaining Bletchley's secrecy was considered to be vital. "We were told, 'You must never tell anybody. That's forever and if by any chance you let the word out you will be immediately sent to prison.' It was not cool to go to prison so we took it very seriously."

Bourne's anonymity took practical forms, although she once encountered a fellow secret operative from headquarters. "We had no badges on our uniforms to say what we were doing, although other categories of Wrens did. I once met a girl and we asked each other what we were doing and she said, 'I'm at Bletchley'. I replied, 'That's nice. Our quarters are horrible, what are yours like?' but she simply repeated, 'I'm at Bletchley'. I knew then that she wasn't going to say another word, that's how it was." Such was the successful silence surrounding Bletchley that Winston Churchill sent a thankful telegram to Eastcote. "He was very fond of bird analogies and described the Bletchley



An important part of Bourne's job was arranging the intricate array of plugs at the back of the Bombe before a code interception 'run'



Below: A 'W/T Red Form' dated from 26 December 1943 that demonstrates the decryption results of the Bombe. This decoded message was intercepted from the German battleship 'Scharnhorst' (pictured), which stated, "Am steering for Tannafor. Position IS SQ AC 4992. Speed 20 Knots. Scharnhorst." Royal Navy vessels proceeded to locate and sink the ship the same day

S.1319. Cat. May, 1925. Revd. Nov. 1931. **W/T RED FORM.** Def. No. 23. Page.

|                       |       |            |                     |            |   |
|-----------------------|-------|------------|---------------------|------------|---|
| Ship or Station.      | Set   | H.R.O. N22 | Date.               | 26.12.43   | Operator's Remarks.*                              |
| SWS<br>"Duke of York" | Opr.  | J. Rough.  | Time Ended§         | See below. | O.S.A. 5.<br>Last transmission from "Scharnhorst" |
|                       | To†   |            | Frequency & System. |            |   |
|                       | From‡ |            | 6475 Kcs.           |            |   |

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Text, Time of Origin, Signature, etc. Write across the page, code and cypher on every third line.

1) de KR ANA KR KR ANALE LA  
(Time ended:- 1832Z)

2) Priority Jags. 125 21.

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| UTKZ | RBSB | YKAE | NZAP    |
| MSCH | ZBFO | CUM  | RMDP    |
| YCOF | HADZ | IZME | FXTH    |
| FLOL | PZLF | GGBO | TGOX    |
| QRET | DWTJ | IQHL | MXVJ    |
| WKZU | ASTR | UTKZ | RBSB. A |

(Time ended:- 1832Z. Erratic noise. No further heard.)

Do not use Left Margin.

G 03556/25. \*Constantcy and reliability of signals, quality of operating, interference, atmospherics, etc. †Name of Station, if not known leave blank. ‡W.M.T. to be used on Home and Mediterranean Stations, other users indicate "Zone". Time employed.

15/411 WY3130/D601. 12/29 71,600 pads. H & S, Ltd. 15/52X. S.1319.

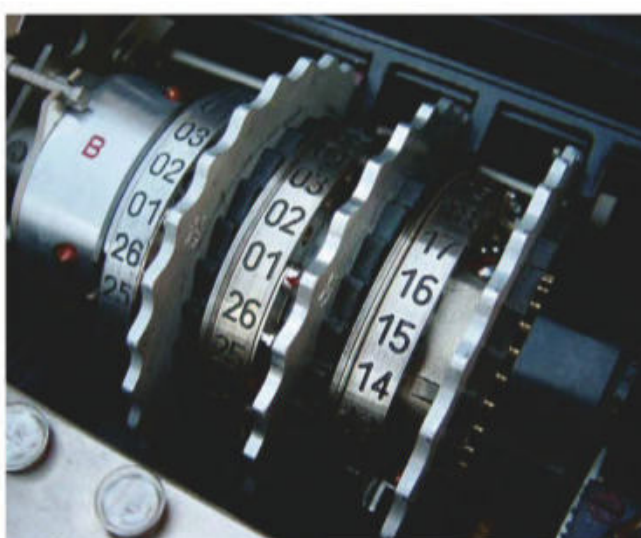


employees as ‘the geese that lay the golden eggs but never cackled’. I remember reading on the notice board a message he sent to the Wrens that said, ‘Glad to hear the hens are laying so well without clucking’.”

Despite the pressure and silence surrounding Bletchley Park’s operations, Bourne did find time to enjoy herself. “I was quite happy and we had a lot of fun. In between your shifts there were lots of attractions in London where you could stay out with late passes. It also very much helped being in uniform. For example, we could get cheap theatre tickets and go out the back to meet stars such as Laurence Olivier and Emyln Williams. They would sign our programmes and have a few words with us, which was nice.”

Following VE Day, Bourne was due to be posted overseas to work on Japanese weather codes, but Japan’s surrender ended that possibility. “We were selected to go to Malta or Gibraltar, where the new GCHQ was based, but we never got there. I clearly remember the atomic bomb was dropped while we were queuing to have our vaccinations to go abroad at Stanmore.”

Instead, Bourne was ordered to destroy the Bombe machines she had worked with throughout her wartime service. “Churchill had apparently ordered that they be dismantled, and we tore them apart. We had a soldering iron and there were 12 miles [19 kilometres] of wire in each Bombe. The wires had little connections, and these had to be unsoldered.



*The three rotor stacks inside the Enigma machine were ingeniously replicated on the Bombe*

The connections went into one box, the wire went into another box and a lot was sold off as army surplus.”

### Silence and recognition

Bourne served in the Wrens until she was demobbed in November 1946. She didn’t speak of her wartime work for decades, until the secrets of Bletchley began to be publicised. “It wasn’t very difficult to forget about it because it had just been a job and I was getting married etc. What I had done went by the board and my parents died not knowing what I did, they hadn’t a clue. We [the surviving veterans] would still never have said anything, but books started to come out, like F.W. Winterbotham’s

*The Ultra Secret* in 1974. Even that first book was very limited because all the information was still held in the Public Record Office.”

Nevertheless, Bourne eventually became determined to highlight the importance of the wartime codebreakers. In 1994 she became a volunteer guide at Bletchley Park, working there for over 20 years. During that time she became more aware of the value of her own work. “I had to be very knowledgeable and started reading all the books and making notes. I learned about how Enigma really worked and its connection to the Bombe, and then of course the whole picture began to add up.”

Through her guiding, Bourne began to be publicly recognised for her contribution, which she initially found a little disconcerting. “It was only when I started volunteering that more information kept emerging. People started to want to shake my hand for what I had done during the war, and that was very embarrassing but they thought it was important.”

Despite her modesty, Bourne is now a celebrated veteran and was awarded the Légion d’honneur by the French government on 9 November 2018. She is also more comfortable with the attention she rightfully receives: “Now I feel very proud but not because of what I particularly did in a way. The only thing I’m proud of is that I did it accurately and never told anybody. I can’t say I was a codebreaker because I wasn’t. However, I was part of it and trusted to be part of it. I’m very much surprised at the recognition, but I feel very pleased and happy.”

Images: Getty, Shutterstock, Ruth Bourne

**“BOURNE IS NOW A CELEBRATED VETERAN AND WAS AWARDED THE LÉGION D’HONNEUR BY THE FRENCH GOVERNMENT ON 9 NOVEMBER 2018”**

## BLETCHLEY PARK

The former codebreakers headquarters is now a vibrant heritage attraction and is open everyday except 24-26 December. For more information visit: [www.bletchleypark.org.uk](http://www.bletchleypark.org.uk)

*A Bombe unit room at Eastcote c.1943. The women are sat in front of the checking machines, which scrutinised the Bombe’s intercepted messages before being passed on to Bletchley Park*



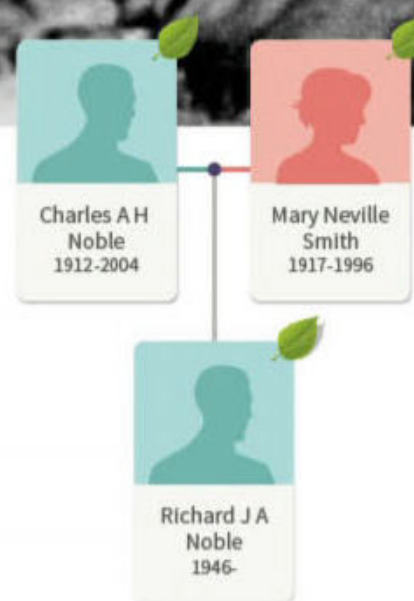
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**“WHEN 28  
TOWERS WITH  
1,500 SKULLS  
EACH HAD BEEN  
MADE, TIMUR  
DEPARTED,  
CONFIDENT THERE  
WOULD BE NO  
MORE REBELLIONS  
AT ISFAHAN”**



*Above: Timur's army  
besieges the Knights of St.  
John's garrison at Smyrna*

## EMIR TIMUR

Timur wears a crown signifying he is the ruler of Transoxiana. He sports a richly embroidered coat in the Islamic Persian style and wears a cape over it to further signify his aristocratic status. His long curved sword rests in a decorative sheath. His large belt is typical of that worn by steppe nomads, who spent most of their time in the saddle.

When armoured for battle, Timur donned a segmented helmet and mail aventail evocative of the Mongols. To protect his upper body, he wore a woollen coat atop lamellar body armour. His weapons were a composite bow, curved sword and bossed shield.



*Statue of Timur in  
Shakhrisabz, Uzbekistan*





# LORD OF TERROR

# TIMUR

Turco-Mongol Emir Timur embarked on three decades of conquest in western Asia that were punctuated by horrific acts of savagery

WORDS WILLIAM E. WELSH

**T**he presence of thousands of Tatars outside the walls of Isfahan in 1387 convinced its governor to surrender without resistance to the invading army of Timur. While negotiations were underway, the inhabitants of the great Persian city hid, trembling in their cellars.

No sooner had Timur departed than loud drums reverberated throughout the city calling forth its citizens to slaughter the occupation force. They stabbed or hacked to death all of the Tatars. When Timur learned of their treachery, he returned to the city and ordered his troops to bring him the heads of the inhabitants.

The Tatars dragged men, women and children from their hiding places in the city and beheaded them. Upon Timur's instructions, his troops then cemented the heads into pyramids atop the city walls as a warning to would-be rebels. When 28 towers with 1,500 skulls each had been made, Timur departed, confident there would be no more rebellions at Isfahan.

## A petty sheep rustler

On the Eurasian Steppe, southeast of the Aral Sea in Transoxiana, Timur was born into the impoverished Barlas clan in 1336 at Shahrisabz in modern-day Uzbekistan. The Barlas traced their lineage back to Mongols who had settled in Transoxiana, the land between the Amu Darya (Oxus River) and Syr

Darya (Jaxartes River), and intermingled with the Turkic population.

By the time Timur was born, Genghis Khan's once-great empire had divided into several successor khanates. Timur lived in the sprawling Chagatai Khanate. The Turco-Mongols of Central Asia, who were also known as Tatars, had converted to Islam in the early 14th century.

Timur, who sought to emulate Genghis Khan, would eventually make a name for himself through his boundless ambition, resourcefulness and cunning. "He was firm in mind, strong, and robust in body, brave and fearless, like a hard rock," wrote Ahmed Ibn Arabshah, who was Timur's servant.

In his early 20s, Timur led a band of unruly horsemen who rustled sheep, preyed on travelling merchants and skirmished with rival clans. Timur took pride in his vocation as a bandit. He seized control of the Barlas clan in 1360 when its leader, Hajji Beg, fled the region for fear that he would be captured and executed by the invading Moghuls, who controlled the eastern half of the Chagatai Khanate. To contest Moghul aggression, Timur formed an alliance with another Barlas chief, Amir Husayn, his brother-in-law. Husayn ruled Balkh in neighbouring Khorasan.

Timur experienced a life-altering incident at the age of 27 in 1363. While stealing sheep, he was

chased and shot in his right side with several arrows. Although one of the arrows struck his arm, the other two struck his right leg where the thigh bone meets the kneecap. The damage to his right leg was so severe that he was hobbled for the remainder of his life. As a result, the Persians nicknamed him 'Timur the lame', and the Europeans dubbed him 'Tamerlane'.

## Emir of Transoxiana

Timur had not only to repulse the Moghuls who sought to exert their control over the lawless Turco-Mongol tribes in Transoxiana, but also find a way to crush rivals within the region. The greatest external threat was Moghul Khan Tughlugh, who sought to extend his control over the entirety of the Chagatai Khanate. Timur initially served as Tughlugh's vassal but was eventually replaced when Tughlugh appointed his son, Ilyas Khoja, as governor of Transoxiana. In order to be strong enough to repel the Moghuls, Timur continued his alliance with Husayn.

Timur and Husayn joined forces in 1365 to defend Transoxiana against Khan Khoja's invading Moghul army. Timur's mounted troops launched a promising attack to open the Battle of Tashkent on 22 May. But when his forces became hard-pressed, Husayn inexplicably fled the field rather than commit his own troops. Although the Moghuls won the



battle, they failed to capture Samarkand and subsequently withdrew.

Timur saw this as a golden opportunity to snuff out Husayn. After capturing Balkh, he had a subordinate murder his rival. Timur then crowned himself emir of Transoxiana on 10 April 1370. Because Mongol law required that only a direct descendent of Genghis Khan could rule a khanate, Timur took the title of emir of Transoxiana and appointed a key ally, Soyurghatmish Khan, to be the nominal head of Transoxiana.

As part of his consolidation of power in greater Transoxiana, Timur invaded Khorezm, a fertile region on the lower Amu Darya, in 1372, toppling the Sufi dynasty in the process.

A few years later a young Mongol prince named Tokhtamysh sought Timur's assistance in seizing control of the Blue Horde bordering Transoxiana to the north. Timur furnished Tokhtamysh with military aid, and within two years the young prince was installed as the khan of the Blue Horde. Timur seemed to have earned the lifelong trust of Tokhtamysh, but events would prove otherwise.

March into Persia

Timur's first campaign beyond the borders of the Chagatai Khanate began in 1381 with the conquest of Khorasan, which bordered Transoxiana to the west.

The following year Timur led his 70,000-strong campaign army west to the Mazandaran region of Persia on the southern shores of the Caspian Sea. The Mongol Ikhanate that had encompassed Persia had dissolved in the mid 14th century into a half-

“TIMUR BEGAN A MARCH OF DESTRUCTION THROUGH PERSIA AND MESOPOTAMIA IN 1392 KNOWN AS HIS FIVE-YEAR CAMPAIGN”

dozen weak sultanates and principalities. Timur initially singled out Emir Wali of Mazandaran for punishment, as the emir had launched an attack against one of Timur's vassals in Khorasan.

After crushing Wali, Timur counter-marched to complete his conquest of eastern Persia. He then returned to Mazandaran to systematically reduce its cities. They toppled like dominoes before Timur's veteran horde. Timur's crisscrossing of Persia was indicative of his campaigning. He often returned two or three times to the same region to crush rebellions, or finish the process of plunder and destruction left unfinished on a previous visit.

War against Tokhtamysh

Timur was shocked in 1385 when Tokhtamysh plundered Tabriz. Several years earlier, Tokhtamysh Khan had succeeded in uniting the two wings of the Golden Horde, which greatly increased his strength. Timur sent an army into Azerbaijan to punish his protégé-turned-rival. When Tokhtamysh raided Transoxiana in 1388 the Khorezms rose up in his support.

Infuriated by such acts of treachery, Timur returned to Samarkand and drove the invaders



Above:  
Mural of Timur the Great at the Tamerlane Museum in Uzbekistan



Timur's unstoppable Mongolian horse archers won the Battle of Ankara in 1402

across the Syr Darya, destroying their rearguard in the process.

In June 1391 Timur launched a major invasion of the Golden Horde. In a desperate battle on the Kondurcha River, Timur prevailed, inflicting a stinging defeat on Tokhtamysh's Mongols. Afterwards, Timur burned the khan's capital at Sarai on the lower Volga River.

Timur began a march of destruction through Persia and Mesopotamia in 1392 known as his five-year campaign. He interrupted his conquest of Persia when necessary to battle Tokhtamysh, who continued to prove a nuisance.

In the meantime, Timur toppled a number of Arab and Mongol dynasties in Persia, replacing their rulers with his sons or loyal lieutenants. In June 1393 Timur advanced on the Shia holy city of Shiraz. Shah Mansur, a Muzaffarid prince, led an army in a failed defence of the city. During the desperate struggle, Mansur fought his way through Timur's bodyguards and struck Timur on his helmet twice before he was slain.

Later that year Timur marched on Baghdad, which he captured without a fight. While in Baghdad, Timur sent envoys to Chief Qara Yusuf of the Black Sheep Turks and Sultan Bayezid I of the Ottomans Turks. He also sent envoys to Mameluke officials in Syria and Egypt, demanding they acknowledge his suzerainty.

The destruction he wrought in Mesopotamia was not soon forgotten: "The Tatar troops hurled themselves upon Iraq like armies of ants and grasshoppers; they overran the countryside and sped in all directions, plundering and ravaging," wrote Persian historian Sharaf ad-



*Timur imprisoned Ottoman Sultan Bayezid I in a golden cage following his capture at Ankara*



Din Yazdi. Next, Timur fought his way through Kurdistan, Armenia and Georgia.

Tokhtamysh again raided Timur's territories in the Caucasus region in 1395. Timur gave chase and overtook his nemesis at the Terek River on 14 April. After crushing Tokhtamysh's army and pursuing the remnants all the way to Moscow, Timur installed a vassal on the throne of the Golden Horde.

### Battle of Delhi

In late spring 1398 Timur led 90,000 troops in an invasion of the Delhi Sultanate of Nasiruddin Mahmud. Timur's pretext was that Sultan Mahmud allowed his Hindu subjects to worship false idols in a manner insulting to Muslims.

On its bloody march through Punjab, Timur's army took 80,000 Muslim and Hindu hostages. After fording the Indus River, Timur decided to have the captives executed as they had become too much of an encumbrance.

When Timur's army faced off against the sultan's 50,000-strong army, the steppe warriors recoiled at the thought of having to do battle against Mahmud's 120 war elephants. To nullify the threat that the pachyderms posed to his army, Timur ordered his troops to construct ditches, palisades and ramparts. He also told them to use fire to frighten the elephants.

When the sultan committed his war elephants during the battle on 17 December, they became terrified by the flames and trampled hundreds of their own troops. After carrying Delhi by storm, Timur's army marched north in January 1399 laden with one of its largest hauls of plunder.

## “WHEN A RELIEF ARMY ARRIVED BY GALLEY, IT WAS BOMBARDED WITH SEVERED HEADS OF THE SLAIN CRUSADERS FIRED FROM SIEGE ENGINES”

### Invasion of Syria

By this time, Timur and Bayezid I were engaged in a heated war of words via correspondence. Timur called Bayezid “a petty prince,” and Bayezid vowed to roll back Timur's conquests in Persia. Before marching against the Ottomans, though, Timur decided to vanquish the Mamelukes to prevent them from attacking him from the rear while he was fighting the Ottomans. The viceroy of Aleppo had executed Timur's envoys in 1393, and the nomadic conqueror vowed revenge.

Timur vanquished the Mameluke army beneath the walls of Aleppo on 11 November 1400. He then marched south and burned Damascus to the ground.

### Clash of empires

On 20 July 1402 Timur's steppe warriors met Bayezid's army in battle north of Ankara at Cubuk. Bayezid, who had 10,000 crack janissaries, and reinforced his army with a division of Serbian heavy cavalry. For his part, Timur brought a corps of Indian elephants

to buttress his horse archers. The fighting went well for the Ottomans at first when the Serbian cavalry drove a deep wedge into the Timurid line. However, the steppe warriors inflicted devastating losses on Bayezid's troops with steady barrages of arrows. When he attempted to save himself, Bayezid was captured. Timur then paraded him through Anatolia in a cage as he went about reducing pockets of resistance.

One such pocket was the Knights of St. John's fortress at Smyrna. Timur captured their citadel after a two-week siege. When a relief army arrived by galley, it was bombarded with severed heads of the slain crusaders fired from siege engines. The dejected crusaders turned back to Rhodes.

### Unfinished business

When Timur returned to Samarkand he began planning an invasion of Ming China in 1404, but he died the following year. He belongs in the pantheon of the world's greatest conquerors, having forged the contentious ranks of the Turco-Mongols of Central Asia into an army capable of defeating both contemporary Islamic sultanates and powerful Mongol states.

During his reign of terror, Timur either destroyed or greatly disrupted any competing power he encountered. Yet unlike Genghis Khan, he did not put in place an enduring political framework to ensure that his empire would survive after his death. Unfortunately, his greatest legacy remains his wholesale slaughter of the peoples of Western Asia.

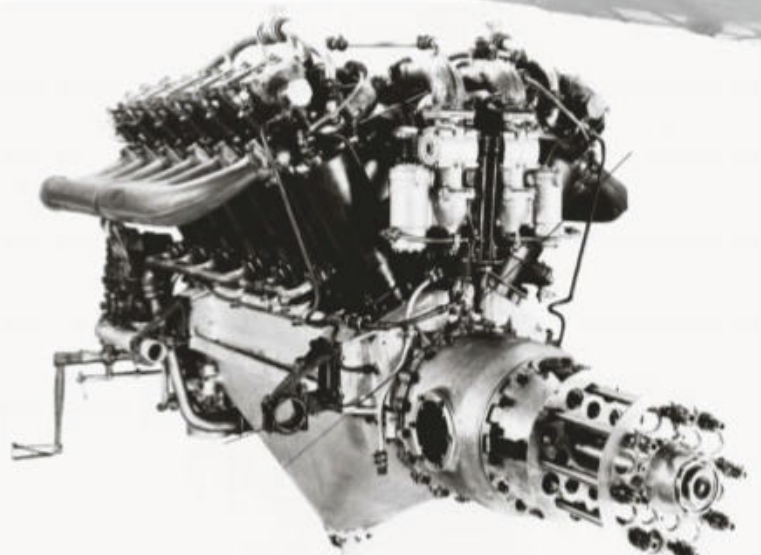
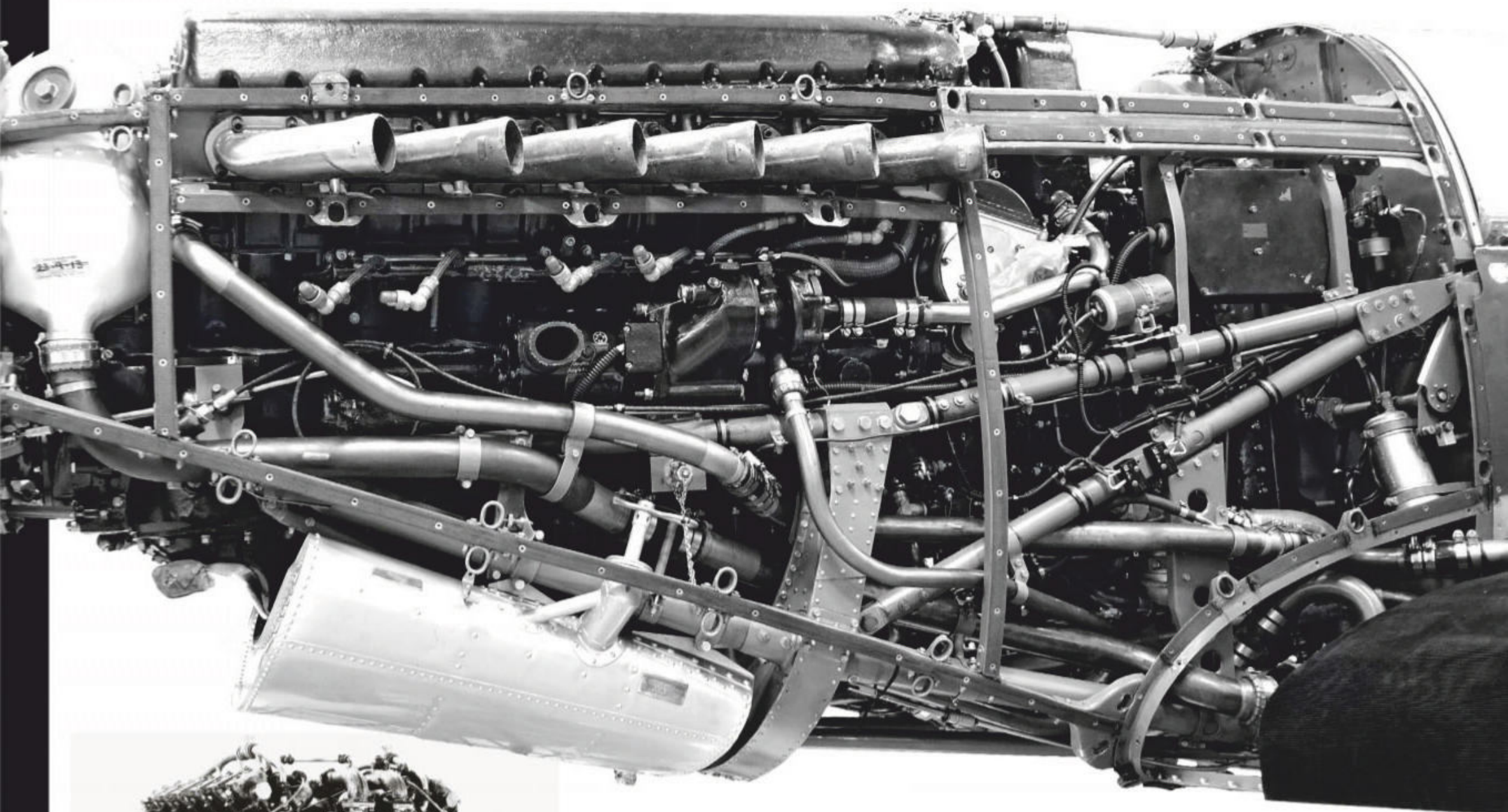




# MERLIN

## THE ENGINE THAT WON WWII

Powering everything from the RAF's 'wooden wonder' the Mosquito, to the US Air Force's Flying Fortresses, this formidable piece of Rolls-Royce engineering served on the frontline of the Allied war effort



**Left:** The Rolls-Royce company developed its Eagle engine, its first aero engine, during WWI, switching from its pre-war focus on car production. The Eagle possessed 225 horsepower and by 1918 was powering 60 per cent of British aircraft

**Above:** The Merlin engine powered many of the Allies' most iconic and successful aircraft throughout World War II

Images: Rolls-Royce Heritage Trust



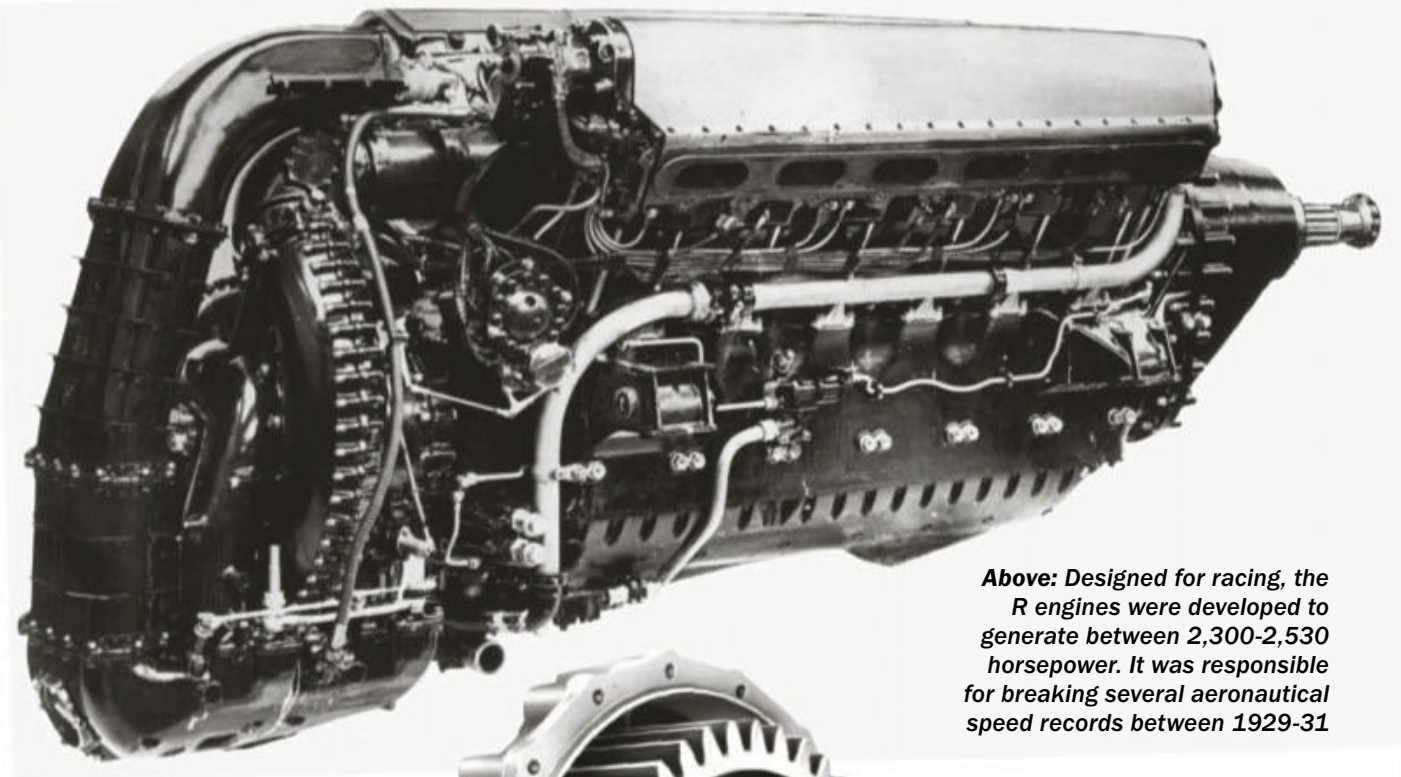
**A**mong the most recognisable engines in the world, the Rolls-Royce Merlin was the power plant behind Britain's WWII defenders – the Spitfire and Hurricane – as well as its trusty sword arm in the form of the Lancasters and Halifaxes of Bomber Command.

On the other side of the Atlantic, the engine was the force behind the iconic Mustang escort fighter, which protected the US Air Force bomber fleet on its daylight raids. The P-51 was also used in the North African, Mediterranean and Pacific theatres. In this way, the Merlin worked day and night over the course of the war to secure Allied victory in 1945.

The engine has rightfully been described as the most significant aircraft piston engine in history, and in the 21st century its distinctive drone can still be heard over England as the Battle of Britain Memorial Flight takes to the air on special occasions – most recently on the centenary of the RAF in 2018, with its Lancaster leading the Rolls-Royce-powered Spitfires and Hurricanes in formation.

In his new book, *The Merlin: The Engine That Won The Second World War*, pilot and researcher Gordon Wilson tells the human story of the development of the engine and its operational use during the war. Packed with a stunning array of photographs and illustrations, some of which are shown here, *The Merlin* also includes the voices of air crew who worked with and relied on this technological tour de force.

Wilson not only tells the story of the engine's origins and wartime contribution, but also how it has been resurrected and restored over the years. From discovered wartime wreckages, as well as surviving aircraft from around the world, these restoration projects, often funded by charities and passionate aviation experts, are crucial to the continued existence of these brilliant machines. For more information, visit [www.amberley-books.com](http://www.amberley-books.com)



**Above:** Designed for racing, the R engines were developed to generate between 2,300-2,530 horsepower. It was responsible for breaking several aeronautical speed records between 1929-31



**Left:** An illustration of the propeller gearing connecting to the Merlin engine

**“THE ENGINE HAS RIGHTFULLY BEEN DESCRIBED AS THE MOST SIGNIFICANT AIRCRAFT PISTON ENGINE IN HISTORY”**



**The Supermarine S6 seaplane pictured at Calshot Spit, Hampshire, England. Powered by the Rolls-Royce R engine, the plane won the coveted Schneider Trophy in 1929, and its B variant also won in 1931**



MERLIN: THE ENGINE THAT WON WWII



A Supermarine Spitfire Mark IX Photo Reconnaissance aircraft, with its Merlin 72 engine on full display. These variants were designed for longer range and greater efficiency, with less requirement for the high horsepower of previous iterations

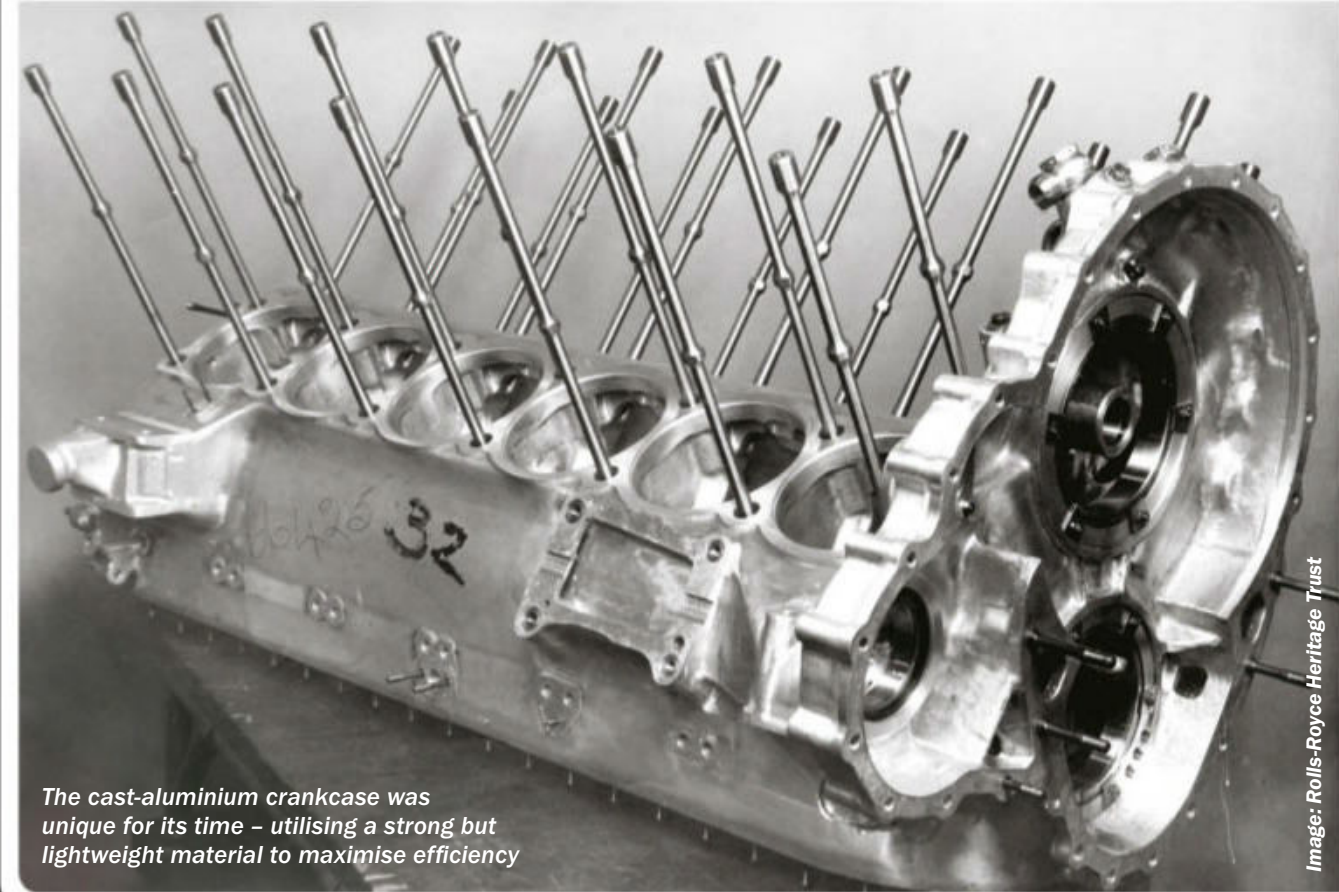
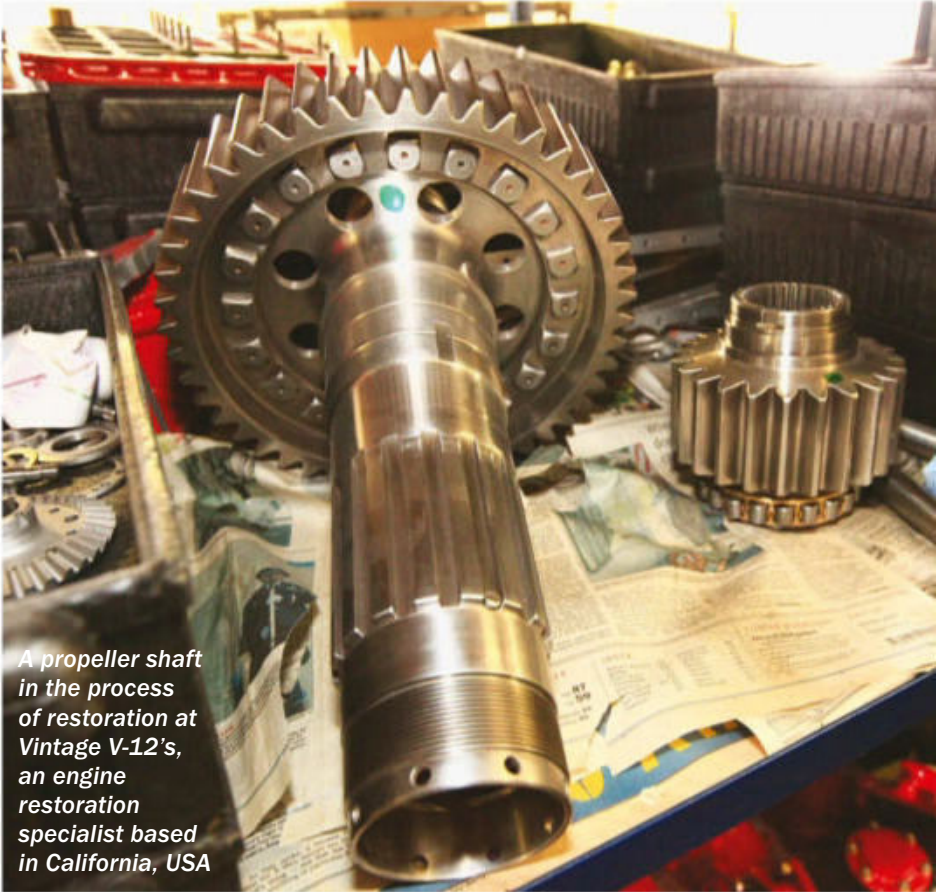


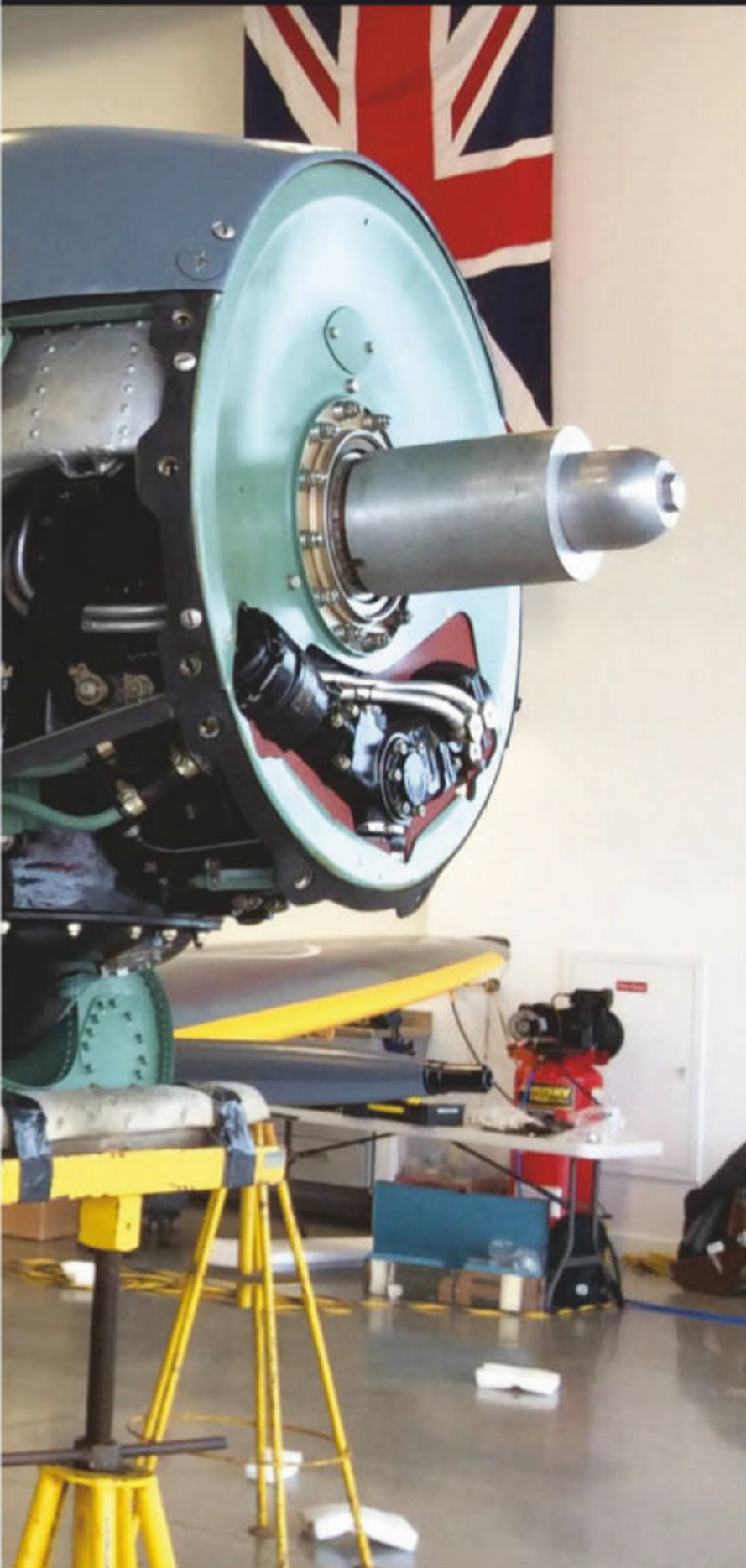
Image: Rolls-Royce Heritage Trust

The cast-aluminium crankcase was unique for its time – utilising a strong but lightweight material to maximise efficiency



A propeller shaft in the process of restoration at Vintage V-12's, an engine restoration specialist based in California, USA





A restored Merlin valve train at Vintage V12's workshop

Image: Atushi "Fred" Fujimori



A Merlin being tested on a stand at Vintage V12's. The workshop is renowned for its Rolls-Royce restoration projects, as well as other engines. Companies such as Vintage V-12's are often contracted for restoration projects by museums around the world. Their work is essential for the ongoing survival of many vintage aircraft and other vehicles

Image: Atushi "Fred" Fujimori



Image: Atushi "Fred" Fujimori



Juan Dorador repairs a Merlin wheel case at Vintage V12's

Image: Atushi "Fred" Fujimori



A Merlin 113/114 from De Havilland Mosquito RS700 / CF-HMS, which was built in England but sold to a Canadian company after the war. It is now the property of the City of Calgary and is undergoing restoration by the Calgary Mosquito Society ([www.calgarymosquitosociety.com](http://www.calgarymosquitosociety.com))

Image: Richard de Boer, Calgary Mosquito Society





## Heroes of the Victoria Cross

# JAMES BRINDLEY NICOLSON

Only one Victoria Cross was awarded to RAF Fighter Command during World War II. It went to this brave Hurricane flight lieutenant for extraordinary heroism during the Battle of Britain

WORDS ANDY SAUNDERS

In December 1940, the BBC broadcast an anonymous RAF fighter pilot talking about his experiences during the Battle of Britain earlier that year. That unnamed pilot was Flight Lieutenant James Brindley Nicolson, who had flown Hurricanes with 249 Squadron from RAF Boscombe Down. In fact, by the time of the broadcast, an announcement had been made in the *London Gazette* on 15 November promulgating the award of a Victoria Cross to Nicolson. But for those listening to James Nicolson telling his story, there was absolutely no connection to the recent public announcement of his VC.

By the middle of August 1940, the Battle of Britain was in full swing and many of the RAF's fighter squadrons had already seen action. 249 Squadron, though, had been in the relative backwater of RAF Leconfield, Lincolnshire. Then, the unit was posted south to Boscombe Down on 14 August. Two days later, over Southampton, the squadron had its first real taste of battle.

In the space of a few minutes two Hurricanes were shot down, with Pilot Officer Martyn King killed, Flight Lieutenant James Nicolson severely wounded and another Hurricane damaged. On the 'credit' side, Nicolson claimed one Me 110 'probably destroyed', albeit 'inconclusive'.

What happened in that encounter, though, has subsequently been subject to confusion and varying degrees of contradiction. However, let us look at the transcript of James Nicolson's BBC broadcast: "That was a glorious day. The



Pilot Officer Tom 'Ginger' Neil of 249 Squadron with Hurricane GN - A, the aircraft flown by James Nicolson when he earned his Victoria Cross

sun was shining from a cloudless sky, with hardly a breath of wind anywhere. My squadron was going towards Southampton on patrol at 15,000 feet [4,570 metres] when I saw three Ju 88 bombers about four miles [6.4 kilometres] away, flying across our bows.

"I reported this to our squadron leader and he replied, 'Go after them with your section'. I led my section of aircraft round and towards the bombers. We chased hard after them, but when we were about a mile [1.6 kilometres] behind we saw the 88s fly straight into a squadron of Spitfires. I used to fly a Spitfire myself and guessed it was curtains for the three Junkers. I was right. They were all shot down in quick time with no pickings for us. I must confess I was very disappointed, for I had never fired at a Hun in my life and was dying to have a crack at them.

"So, we swung round again and started to climb up to 18,000 feet [5,485 metres] over Southampton to re-join our squadron when suddenly, very close, in rapid succession, I heard four big bangs. They were the loudest noises I'd ever heard, and they had been made by four cannon shells from a Messerschmitt 110 hitting my machine.

"The first shell tore through the hood over my cockpit and sent splinters into my left eye. One splinter nearly severed my eyelid. I couldn't see through that eye for blood. The second cannon shell struck my spare petrol tank and set it on fire. The third crashed into the cockpit and tore off my right trouser leg. The fourth shell struck the back of my left shoe, shattering the heel



*James Nicolson  
pictured at the RAF  
convalescent hospital  
after receiving news  
of the award of the  
Victoria Cross*

“...FLIGHT LIEUTENANT NICOLSON’S  
AIRCRAFT WAS HIT BY FOUR  
CANNON SHELLS, TWO OF WHICH  
WOUNDED HIM... WHEN ABOUT TO  
ABANDON HIS AIRCRAFT OWING  
TO FLAMES IN THE COCKPIT HE  
SIGHTED AN ENEMY FIGHTER. THIS  
HE ATTACKED AND SHOT DOWN...”

— Victoria Cross citation,  
*London Gazette*, 15 November 1940





## HEROES OF THE VICTORIA CROSS

of the shoe and making a mess of my left foot, but I didn't know anything about that until later. Anyway, the effect of these four shells was to make me dive away to the right. Then I started cursing myself for my carelessness. 'What a fool I'd been', I thought. 'What a fool'.

"I was thinking about jumping when suddenly a Messerschmitt 110 whizzed underneath and got right in my gun sight. Fortunately, no damage had been done to my windscreen or sights, and when I was chasing the Junkers I'd switched everything on, so everything was set for a fight. I pressed the gun button, for the Messerschmitt was in nice range.

"He was going like mad, twisting and turning as he tried to get away from my fire, so I pushed the throttle wide open. Both of us went down in a dive. First, he turned left then right, then left and right again. He did three turns to the right and finally a fourth turn to the left. I remember shouting out loud at him, 'I'll teach you some manners you Hun'. I shouted other things as well. I knew I was getting him nearly all the time I was firing.

"By this time, it was pretty hot from the burst petrol tank. I couldn't see much flame, but reckoned it was there alright. I remember looking at my left hand, which was keeping the throttle open, and seemed to be in the fire itself. I could see the skin peeling off yet had little pain. Unconsciously, too, I'd drawn my feet up under my parachute on the seat – to escape the heat, I suppose.

"Well, I gave the Hun all I had and the last I saw, he was going down with his right wing lower than the left. I gave him a parting burst, and, as he disappeared, started thinking about saving myself."

From this dramatic account of a desperate action, with the pilot overwhelmed by 'red mist' and exacting retribution on his erstwhile attacker, there is little wonder he was recommended for a VC. However, Nicolson left another testimony; his personal combat report. In it, having described the combat, he goes on: "I then abandoned aircraft with difficulty and after dropping some 5,000ft [1,525 metres] pulled cord – I was shot in buttocks by an LDV (local defence volunteer) just before landing".

Censored for public consumption, this wasn't mentioned in the BBC broadcast. However, the combat report, dictated to his CO, Squadron Leader John Grandy while Nicolson was in hospital, also added, "I cannot swear whether firing button was at 'safe' or 'fire'". This is at odds with definitive statements made in his broadcast.

That aside, there is no doubt that Nicolson stayed with his burning fighter trying to turn the tables on his attacker. And there is no doubting he was fired on from the ground in his parachute. A local Southampton man, Robert Stanley, took up the story: "In 1940 I served in the LDV. On 16 August I saw a Hurricane descending with a trail of smoke. The pilot baled-out and I decided to follow him to be on hand if help was required.

"I set off in hot pursuit of the airman, now drifting westwards. Keeping him in sight I was horrified to see tracer bullets winging towards him from the ground. Arriving where he landed, I helped release him from his parachute. At this point a group of Royal Engineers came yelling



*Nicolson plays Shove Halfpenny while recuperating in hospital, 1940*

**"I GAVE THE HUN ALL I HAD AND THE LAST I SAW, HE WAS GOING DOWN WITH HIS RIGHT WING LOWER THAN THE LEFT. I GAVE HIM A PARTING BURST, AND AS HE DISAPPEARED STARTED THINKING ABOUT SAVING MYSELF"**

*Nicolson was the only Fighter Command pilot to receive the VC, and was also later awarded the DFC*





into the field – clearly intent on harm. I ran towards them shouting, ‘No! He’s one of ours!’, and with a Policeman managed to calm things. Clearly, they’d been responsible for the shooting as the gunfire came from their nearby HQ.

“Later, I found 11 recently fired .303 cases in a field near their base. The LDV got the blame for it, but I know it was the REs – because we in the LDV had .300 rifles, not .303.”

Nicolson, peppered in the buttocks, had heard the shooting and concluded those wounds to be shotgun pellets. In fact, they were probably splinters from cannon shells that exploded around him – borne out by examination of his tunic, trousers and Mae West at Tangmere Military Aviation Museum. Luckily, the soldiers were poor shots, otherwise the outcome might have been different.

Another pilot on the squadron, Pilot Officer ‘Ginger’ Neil, related, “It appeared he had shot at the Hun who had set him on fire. Stout fellow. The account which John Grandy received was very factual and not at all in the manner of ‘Nick’, who could be quite imaginative at times. We were all especially amused when we learned that an LDV had shot him in the backside before he landed in his parachute. In the bum, for heaven’s sake! Everything happened to ‘Nick’.”

As for the Me 110 ‘probably destroyed’ by Nicolson, there is also confusion. His attacker was reportedly the same Me 110, but there

**“FLIGHT LIEUTENANT NICOLSON HAS ALWAYS DISPLAYED GREAT ENTHUSIASM FOR AIR FIGHTING AND THIS INCIDENT SHOWS THAT HE POSSESSES COURAGE AND DETERMINATION OF A HIGH ORDER. BY CONTINUING TO ENGAGE THE ENEMY AFTER HE HAD BEEN WOUNDED AND HIS AIRCRAFT SET ON FIRE, HE DISPLAYED EXCEPTIONAL GALLANTRY AND DISREGARD FOR THE SAFETY OF HIS OWN LIFE”**

**– Victoria Cross citation  
15 November 1940**

were no Me 110s in combat in that area; no Me 110s are shown in Luftwaffe records as lost or damaged, and no Me 110 pilot made any claims. There was, however, a Me 109 pilot who made victory claims over two Hurricanes in the right place and time; Oberleutnant Heinz Bretnütz of 6./JG 53, who claimed his 13th and 14th victories – clearly, Nicolson and King.

The involvement of 249 Squadron with Me 109s is confirmed in a report by Squadron Leader John Grandy, dated 19 August 1940, stating Nicolson was involved with an “unknown number of Me 109s”. Nevertheless, confusion by Nicolson and official reports has led to the accepted version involving Me 110s. One thing, however, is certain; James Brindley Nicolson acquitted himself bravely and endured terrible injury in efforts to down the enemy.

Fully recovered by September 1941, Nicolson was posted to India in 1942. Between August 1943 and August 1944, as squadron leader and CO of 27 Squadron, he flew Beaufighters over Burma, earning the DFC.

As a wing commander, Nicolson was killed on 2 May 1945 when the 355 Squadron B-24 Liberator in which he was flying as supernumerary caught fire and crashed in the Bay of Bengal. No trace of him was ever found.

His VC medal group was sold at auction by his widow in 1983 for £110,000 – then a record for a VC – and was purchased by the RAF Museum, Hendon.



*Hawker Hurricanes, pictured over France in 1940. Hurricanes were heavily involved during the Battle of Britain*



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HE GAVE A NAZI SALUTE, AND THE MARINE  
GUARD CLOBBERED HIM ON THE HEAD"**



## **82 THE FATE OF HMS TRUGULENT: SURVIVOR OF THE PEACETIME TRAGEDY**



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# A SUBMARINER'S ESCAPE



INTERVIEW WITH ROYAL NAVY VETERAN FRED HENLEY

WORDS TOM GARNER

This veteran survived years of active service during WWII but was almost killed during the peacetime sinking of HMS Truculent

**T**he loss of HMS Truculent on 12 January 1950 remains one of the worst peacetime naval disasters in British post-war history. The Truculent was a T-class submarine that was commissioned in 1942 and had spent much of its WWII service in the Pacific theatre. It had survived the war and was returning to Chatham after sea trials in the North Sea when it collided with Swedish oil tanker Divina at night in the Thames Estuary.

The submarine sank almost immediately with great loss of life. Truculent usually had a crew of 61 but on 12 January it was carrying an additional complement of 18 dockyard workers. 64 of the 79 men onboard died and there were only 15 survivors. Ten were picked up by the Divina while five others were rescued by the Dutch ship 'Almdijk', including Leading Seaman Fred Henley.

An experienced sailor, Henley had been at sea since he was a teenager and had

served throughout WWII on ships and motor launches in dangerous waters and hazardous operations. He had survived the Arctic convoys, Operation Torch and the hostile islands of occupied Greece, among many other missions, but nothing could have prepared him for the demise of Truculent.

Now the only living survivor of the sinking, Henley remembers his action-packed wartime career and his fateful experience on a cold night in 1950.



Henley (third from right, front row) and his training class at HMS Ganges, 1939. The photograph is in poor condition because it was recovered after the salvage of HMS Truculent

**“WHEN ONE OF THEIR OFFICERS CAME ABOARD HE GAVE A NAZI SALUTE, AND THE MARINE GUARD CLOBBERED HIM ON THE HEAD”**





## A sailing apprenticeship

**What were your first maritime experiences in the 1930s on the Thames barge Derby?**

I was taking cargoes down from the London docks and distributing them into Maldon, north Kent and the Medway. It was all done by sail. I was the mate and I had to learn all of the sailing operations. The skipper of the barge was my uncle, and he couldn't get a mate so he grabbed me. This was in 1937, so by the time the war broke out I already knew a bit about sailing.

**Why did you join the Royal Navy, and what was your training like?**

I always wanted to join the navy, even as a small boy. I volunteered in 1938, but I never went for training until the end of 1939 when I went to the boys' training establishment at HMS Ganges. I was there for three months before they sent us to the Isle of Man to finish our training. Our instructor was a bit of a brute. If we made any mistakes on the parade ground then we would get a belt around the ears, but it was more or less a standard practice then.

*Henley witnessed the salvaging of HMS Truculent in March 1950, but the submarine was sold for scrap two months later*

## Cutlasses and convoys

**What were your tasks on your first ship, HMS London, between 1940 and 1942?**

She was a cruiser, and it was pretty crowded as we had extra men onboard. My job as a 'boy' was to be a sight-setter on the four-inch [ten-centimetre] guns. We were also learning about seamanship and the different parts of the ship.

**What happened when you boarded the German ship Babbitonga on 21 June 1941?**

We were in Gibraltar when the Bismarck sank HMS Hood, so all ships were ordered to hunt her down. We initially tagged along but after two days they dispatched us to the South Atlantic to look for Bismarck's supply ships, and we came across three of them. The first was a tanker, and we sank her. The second one's crew abandoned ship before we picked them up and a few days later we found the Babbitonga.

We went over in a boat, but the Germans had opened the seacocks and the ship was gradually settling into the water. Most of us were armed with cutlasses, and the officer and petty officer had sidearms. However, the crew had already abandoned the ship and were in lifeboats. There

were quite a few German sailors and we took them prisoner. When one of their officers came aboard he gave a Nazi salute and the marine guard clobbered him on the head!

**What were conditions like when you sailed on Arctic convoys aboard HMS London between late 1941 and early 1942?**

We went to Iceland and escorted Lord Beaverbrook and Averell Harriman [US special envoy to Europe] to Russia. They were going to Moscow to meet Stalin, and we landed them at Archangel. We came back to Scapa Flow and then we did another convoy up into the Arctic and had a bit of a barney with German aircraft. They hit a couple of our ships and sank them, and we brought one of them down with our anti-aircraft guns.

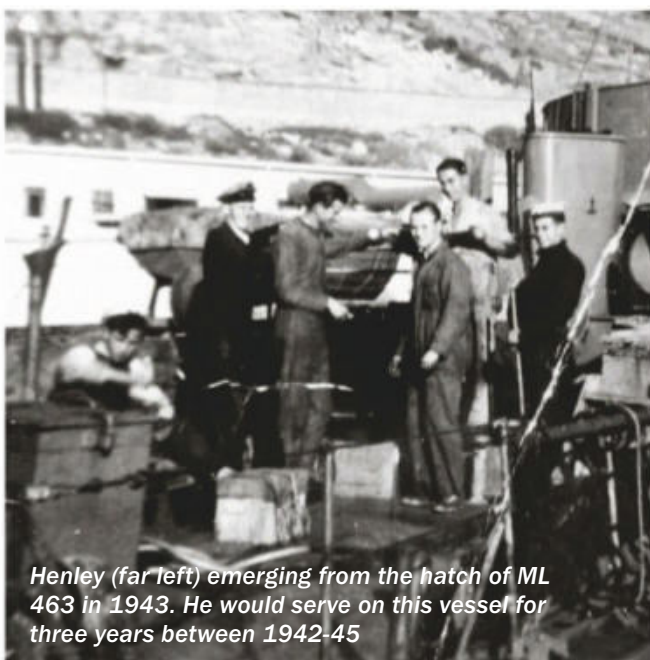
It was damn cold on the convoys. We had to wear quite a lot of Arctic-style clothing, and at one stage we had to go up onto the fo'c'sle [forecastle] to chip away the ice. The spray would come over and then freeze on the superstructure. It would weigh down the ship and then be we'd be in danger of capsizing because of the weight.



*Henley (far right) and his shipmates from ML 463 during WWII*



*HMS Truculent was a diesel-electric powered T-class submarine that had sunk U-308 in June 1943*



*Henley (far left) emerging from the hatch of ML 463 in 1943. He would serve on this vessel for three years between 1942-45*

### Operation Torch and Italy

**After training as an ASDIC (sonar) operator, what were your experiences during Operation Torch in November 1942?**

I was sent to ML [Motor Launch] 463, where there were 16 on the crew: two officers and 14 men. We doubled-up in our roles, so I would also be on twin Vickers machine guns. I would do a shift on pinging [sonar sweeping], and one of the officers used to take over from me.

We had a rough passage to Gibraltar due to stormy weather, and we then escorted the Americans to the landings in Oran. We escorted two British ships filled with US Rangers and got into Oran very quietly.

We were just going to land when the Vichy French opened fire and sank both vessels... We managed to pick up survivors alongside the ships HMS Hartland and HMS Walney and scarper out of there, but we couldn't do much.

**What are your memories of Operation Husky – the invasion of Sicily – as well as the subsequent Italian Campaign?**

I was on pinging duties and we were escorting the troops ashore at Syracuse. There wasn't a lot of resistance to start, but there was quite a bit of fighting going on. The British were fighting to the north of the island and the Americans were fighting to the west. It was all over in a month.

After the Saint-Tropez landings in southern France, we came back to Naples and from the motor launch watched Mount Vesuvius spewing up lava.

It was erupting quite a lot, and the cap of the volcano was orange with smoke going up for miles in the air. They evacuated all the villages nearby, but it wasn't an eruption on the scale of Pompeii.



*Henley witnessed the 1944 eruption of Mount Vesuvius. 26 civilians were killed and almost 12,000 were displaced*

### Naval espionage and gunfights

**What was ML 463's role during the liberation of southern Greece in 1944?**

It was a forgotten part of the war. We went to the island of Kythira and did a bit of patrolling around there. I remember on one occasion a German reconnaissance aircraft came over and half the crew were ashore, so I manned the Bofors gun and shot a few rounds upwards. It was the first time I had fired it.

From Kythira we were sent to Piraeus to find out if the Germans had evacuated. On the way up, one of the German-manned islands lobbed a few shells at us from a long distance. Luckily the shells were too far off and they missed. We got quite a welcome at Piraeus, and all the Greeks came out on boats and tried to get onboard. On the way back one of the deck boards opened in the mess and out popped a Greek! We thought "What the hell?" but this stowaway turned out to be a baker who made us beautiful loaves. Our skipper said, "We'll hang on to him for a bit," and we all contributed bits of uniform for him. We did several patrols with him until we dropped him back at Piraeus.

Following that, ML 463 was damaged in a slight collision and was put in a dock. Volunteers with sailing experience were then

asked to man a brig, and we went to the German-occupied island of Milos to drop off SAS troops. They were 'cloak and dagger' missions where we'd land them at night while sailing under a Greek flag. It was more or less a piece of espionage, and it was rough because we mostly went by sail, although we had a donkey engine for manoeuvring.

**What happened when you were almost killed by Greek partisans on Crete?**

We were ashore on New Year's Eve and there were a few of us in a bar. The next thing we knew there was a crash of gunfire and bullets coming through the windows. Rival factions of the partisans were having an argument, and we all dived under the table and waited until the gunfire died down.

### HMS Truculent

**What made you decide to join the Submarine Service in the Royal Navy after WWII?**

I had got married and it was more money. HMS Spiteful and HMS Surprise were my first submarines, and then I was in Gosport at HMS Dolphin shore establishment. It was a reserve group, and we cared for five S-class submarines. I was then sent to Chatham in late 1949 to join HMS Truculent, which was having a refit.

**What were the circumstances that led to the sinking of HMS Truculent?**

We finished the refit in early 1950 and were due to sail out on Friday 13 January. The skipper was superstitious and said, "I'm not going out on that date: we'll go the day before." We went out into the North Sea to do trials and had 18 dockyard officials onboard, which boosted up the complement.

**"WE WERE JUST GOING TO LAND WHEN THE VICHY FRENCH OPENED FIRE AND SANK BOTH VESSELS... WE MANAGED TO PICK UP SURVIVORS"**



*Truculent was recovered and refloated in March 1950. The bodies of the remaining crew were then recovered*

**"WE FINISHED THE REFIT IN EARLY 1950 AND WERE DUE TO SAIL OUT ON FRIDAY 13 JANUARY. THE SKIPPER WAS SUPERSTITIOUS AND SAID, "I'M NOT GOING OUT ON THAT DATE: WE'LL GO THE DAY BEFORE."**





Fred Henley's dramatic story is the subject of John Johnson-Allen's new biography *They Were Just Skulls*, which is published by Whittles Publishing. For more information visit: [www.whittlespublishing.com](http://www.whittlespublishing.com)

We did diving trials, etc. and when we were coming back we were not far off Sheerness. It was night and there was a sandbank that we had to avoid, and we also saw the lights of a ship. There was a red light on the masthead. I was on duty in the control room when a message was sent down for me to bring up a seamanship manual, and I wondered why they wanted that up there at night. The manual contained different instructions and rules, and while the officers were looking at it this ship was coming closer.

A red light meant that a ship was not under command so we swept away from it, but we went across her bows and she crashed straight into us. She tore a hole in the sub and everyone in the immediate compartment was killed. Around ten were killed then. The rest managed to get aft into the engine room and sealed it off.

I was still right at the top on the bridge, and went to go down the hatch after the captain said, "Everybody below!" I had just got my feet in when there was a "BANG!" and the collision happened. The ship went right over us, and within a few minutes the sub went down, and I went down with her.

### **How did you manage to escape?**

I went down with the sub for quite a while before I managed to extract myself. When I reached the surface I could see these officers floating about. Somebody on board the ship that hit us (the *Divina*) must have heard shouting and they threw a lifebelt over. We all gathered around that, and of course it was damn cold in the water at night in January. We were also floating out on the tide and we must have been somewhere off Margate when we saw the lights of a ship (the *Almdijk*) coming up. When she got near we all shouted for help, and someone on the bridge heard us. A

searchlight came on and soon spotted us in the water. The crew manned a lifeboat and picked us up.

I had been in the water for about an hour and we all had hypothermia. We couldn't speak and we were nearly frozen stiff. The crew of the *Almdijk* took me into a cabin, stripped me off, wrapped blankets around me and put me in a bunk. I was still shaking, and it must have been half an hour before I could speak. One of the ship's Dutch officers came and asked, "Were you a fishing boat?" and I replied, "No, a submarine". He said, "Oh, good gracious!" and dashed off in surprise. That's when they must have informed the Admiralty, and they put on a relief operation.

They landed us at Gravesend, and we were put in a Seaman's Mission for the night. They plunged a needle in my arm and I was awake all night. The next day, the transport from Chatham picked us up and took us to the naval hospital in Gillingham. They measured us up, because our clothing had been destroyed, and they sent us uniforms from Chatham.

### **What happened to the other men onboard the Truculent?**

Those who had got into the engine room had sealed themselves off and there were quite a lot in there, about 40-44 men. The air was gradually going out so they flooded the compartment and opened the escape hatch. When the water had got so far it stopped and the air was compressed to the outside, so they could dive under and open the escape hatch. Most of them got out, but there was nobody to pick them up. 64 men were swept away and most of the dockyard personnel were killed. 79 men had been onboard and there were 15

survivors. There were five of us from the bridge and ten who survived from the engine room.

### **What were your experiences of the aftermath of the sinking?**

I'd been to the court martial, where I gave my evidence, and after that I was sent back to the submarine base at Gosport. At the court martial Lieutenant Bowers was dismissed from the Submarine Service for hazarding the ship. We heard that he committed suicide, but he actually survived and was later awarded an MBE, although for what we don't know.

I then identified bodies two months after the sinking. They sent lifting vessels over from Germany to raise the *Truculent* because she was in 42 feet [13 metres] of water. They sent me out to one of these lifting vessels waiting for it to be raised. Slings went underneath the submarine at low water, so when the tide started to make they lifted it off the bottom before towing it inshore to be grounded.

When the tide went out the *Truculent* was exposed, and dockyard men built a patch over the hole and pumped it out. They then opened up the hatch and brought the bodies out. Their faces were all gone and they were just skulls. An officer asked if I could identify them but I couldn't. I said instead, "Look at the clothing," because they had their names in them, and that's how they were identified. I then went to the inquest where I was the chief witness. A policeman was my escort and he said, "I think Mr Henley should be reimbursed for all his troubles," and I got £1/2/6 (£1.12.5p).

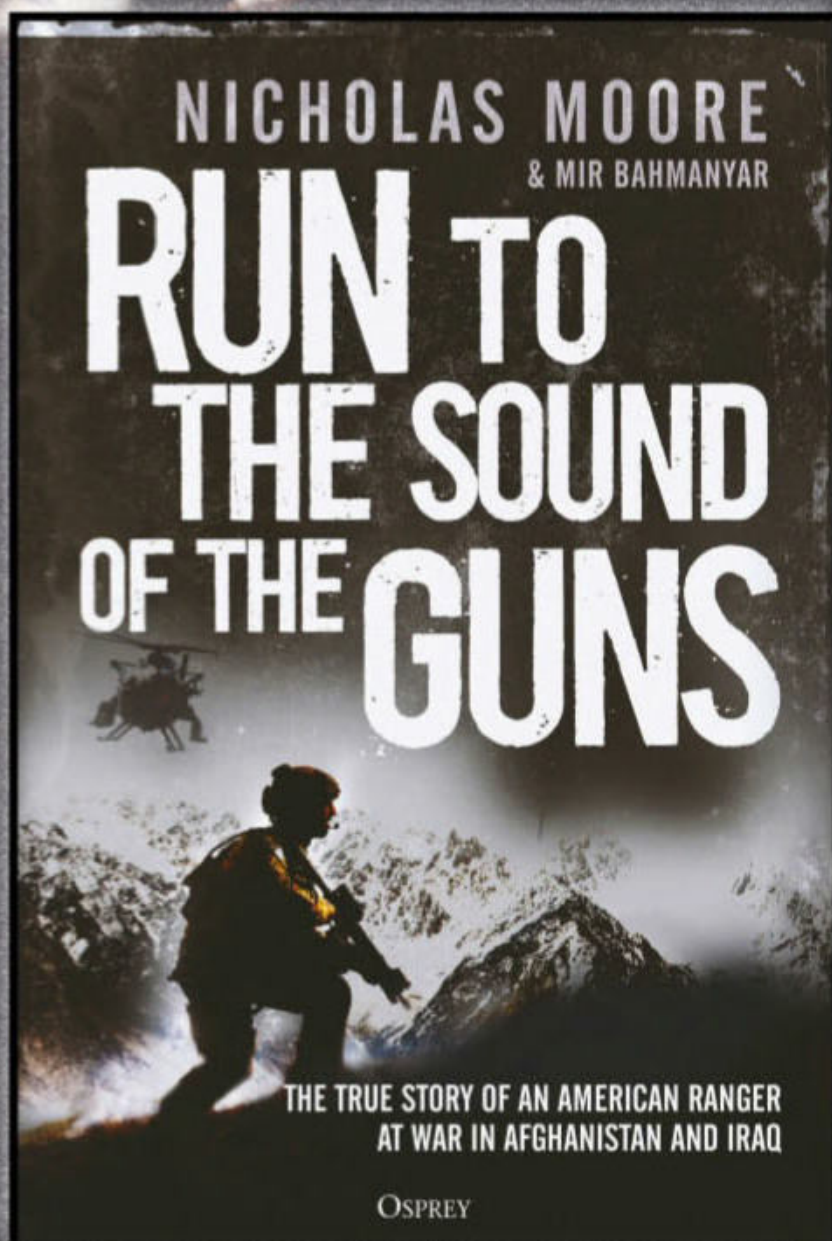
**How did it feel to have survived WWII but then to have almost been killed on HMS Truculent?**  
I just thought, "You lucky devil".



NICHOLAS MOORE

& MIR BAHMANYAR

# RUN TO THE SOUND OF THE GUNS



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**“A RIVETING FOX-HOLE LEVEL  
VIEW OF MORE THAN A DECADE  
OF MODERN WAR.”**

STANLEY A. McCHRYSTAL  
GENERAL (RET.)

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Sweeping from frozen mountaintops to dusty city streets, *Run to the Sound of the Guns* is the compelling account of an elite Ranger who nearly lost his life 'leading the way' in America's secretive global wars.

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# MUSEUMS & EVENTS

Discover WWI survivors' oral testimony at the IWM, Wales' regimental history and York's remarkable fortifications

Visitors can listen to the testimony of 32 people who remembered the Armistice of 1918



'Add Your Voice' enables visitors to write down their own memories of moments that have shaped our world for the IWM

## THE ARMISTICE IN AUDIO

**'I WAS THERE: ROOM OF VOICES' IS THE IMPERIAL WAR MUSEUM'S NEW EXHIBITION THAT FEATURES HAUNTING SOUND RECORDINGS FROM THOSE WHO WITNESSED THE END OF WWI**

The IWM's 'Making a New World' season of innovative exhibitions, installations and experiences is taking place at the museum's venues in both London and Manchester. Taking place until 31 March 2019, this free season explores themes of remembrance and how World War I has shaped the society we live in today.

'I Was There: Room of Voices' is a unique audio perspective on the Armistice. When the guns fell silent at 11am on 11 November 1918 a terrible war ended, and the end of hostilities was a pivotal moment in global history. To interpret this turning point and the tidal wave of emotion that came with it, 'I Was There' is an immersive new sound installation at IWM London.

The ceasefire was a moment that marked the boundary between war and peace and its immediate aftermath. The exhibition therefore contains audio recordings of 32 people who fought and lived through World War I, who shared their own personal stories of the Armistice. These fascinating oral histories have never been exhibited before and have been sourced from the IWM's extensive sound

archive. Personal testimonies are brought together from people who in 1918 were soldiers, civilians and children.

These people all had different reactions to the war, and voices include Dolly Shepherd who was a 31-year-old driver mechanic in the Women's Army Auxiliary Corps. Shepherd was in Calais when the Armistice was declared, and she recalled the silence that followed when the firing stopped: "Strangely enough, we wept, because the silence was so awful. You see we'd been used to the noise of guns, all day long, all day long, all day long... it was so strange, to have silence."

By contrast, Clara Thompson was a 13-year-old schoolgirl who had happy memories of the celebrations back home: "They brought a piano out into the street, and they set up tables all down the middle of the road. Everybody danced and sang and, oh it was amazing..."

Ultimately, the contrasting poignancy and relief surrounding the Armistice

gave way to retrospective anger about the huge casualties. These thoughts are reflected by the testimony of Ernest Argall, who served as a signaller on the Western Front: "Now when the war was over, they gave me two medals. I was so disgusted with the loss of human life, and the way in which human life was chucked about, that I threw my medals in the sea. I wouldn't have them."

By listening to recordings like these, visitors will experience the mixed emotions that the Armistice provoked – from the solemn to the celebratory – and discover how this moment was imprinted on the lives of an entire generation.

*Below, left: Private Harold Boughton was 23 in 1918 and survived Gallipoli and the Western Front: "There was a lot of talk... talk of a land fit for heroes to live in. But it was a long time comin', and in fact I don't think it's come yet"*

*Below, right: Helen Bowen Pease witnessed hope in Newcastle-under-Lyme: "Everybody seemed to be walking up and down the streets saying, 'Is it really over? Perhaps he'll come home after all'"*



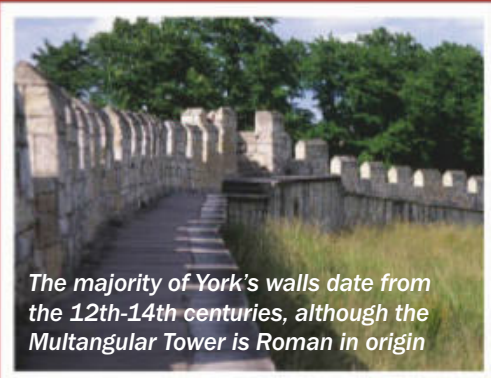
**FOR MORE INFORMATION VISIT: [WWW.IWM.ORG.UK](http://WWW.IWM.ORG.UK)**



## DISCOVER YORK'S 'BARS'

THE WARS OF THE ROSES CAN BE EXPERIENCED IN TWO OF THE MEDIEVAL GATEHOUSES IN THE CITY'S HISTORIC WALLS

York's city walls are some of the finest and complete of their kind in England to survive from the Middle Ages. Extending for four kilometres (2.5 miles) and enclosing an area of over one square kilometre (263 acres), the walls still retain 34 of their 39 interval towers and all four of their gatehouses into the city. Known as 'bars', the gatehouses were the most formidable fortifications protecting York. Two of them, Micklegate Bar and Monk Bar, were designed as self-contained forts with several floors that could be defended separately.



The majority of York's walls date from the 12th-14th centuries, although the Multangular Tower is Roman in origin

The bars are part of the 'Jorvik Group' of historic buildings and attractions that are owned by York Archeological Group, including Jorvik Viking Centre. Both gatehouses form the 'Richard III & Henry VII Experiences' that tell the story of the impact of the Wars of the Roses on the city. Visitors can experience multimedia presentations and arms and armour at the sites, which both have child-friendly activities.

The 'Richard III Experience' is based at Monk Bar, which was completed during the king's reign. Richard had close connections with York, and the gatehouse contains the skeleton of a soldier killed at the Battle of Towton in 1461.

Micklegate Bar is the location of the 'Henry VII Experience', which describes the first Tudor monarch's association with the city. The gatehouse has traditionally been the royal entrance to York for centuries, with its most recent royal visitor being Elizabeth II in 2012. It was also the winner of the 'Hidden Gem' award from Visit England in 2017.

Micklegate Bar was first recorded in the 12th century and its current appearance dates from between 1350-75



FOR MORE INFORMATION VISIT: [WWW.RICHARDIIIEXPERIENCE.COM](http://WWW.RICHARDIIIEXPERIENCE.COM)

## WALES' ANGLO-ZULU WAR HERITAGE

THE REGIMENTAL MUSEUM OF THE ROYAL WELSH HAS A ROOM DEDICATED TO THE ANGLO-ZULU WAR AND ALSO HOUSES THOUSANDS OF MEDALS

The Royal Welsh is the infantry regiment of Wales and has a distinguished history. Although it was only formed in 2006, the unit traces its lineage from the Royal Welch Fusiliers and Royal Regiment of Wales, with the latter being formed from the 24th Regiment of Foot (South Wales Borderers). With a history dating back to 1689, the regiment has 244 battle honours, and 43 of its soldiers have received the Victoria Cross. The regimental museum is located in a military installation known as 'The Barracks' at Brecon in the heart of Powys'

national park. It tells the story of the Royal Welsh in detail and contains a fine collection of military artefacts.

The focal point of the museum is the 'Zulu War Room', which relates the famous exploits of the 24th Regiment of Foot during the 1879 conflict, especially the events surrounding the battles of Rorke's Drift and Isandlwana. The 'Medal Room' contains over 3,000 medals, and other displays cover the involvement of Welsh regiments during many campaigns, including during the Boer War and world wars. The museum also contains many historical items such as weapons, uniforms, paintings and even drums and assegais.

Admission is £5 for adults, £2 for children aged 5-16, while children under five have free admission.



Above: The Royal Welsh's regimental museum holds over a dozen Victoria Crosses awarded to soldiers from the Anglo-Zulu War, Boer War and WWI



The museum contains many artefacts from the Anglo-Zulu War, where Welsh soldiers served with distinction

FOR MORE INFORMATION VISIT: [ROYALWELSH.ORG.UK](http://ROYALWELSH.ORG.UK)



# REVIEWS

Our pick of the latest military history books & films

## SHOAH THE FOUR SISTERS

FOUR FEMALE SURVIVORS OF THE HOLOCAUST TELL THEIR STORIES TO ACCLAIMED DIRECTOR CLAUDE LANZMANN IN THIS POWERFUL AND HEART-WRENCHING DOCUMENTARY

**Director:** Claude Lanzmann **Distributor:** Eureka **Released:** 18 February 2019

Claude Lanzmann passed away in July 2018, aged 92. His final film, *Shoah: The Four Sisters*, originally made for (and broadcast on) French television earlier in 2018, is focused on a quartet of interviews with female survivors of the Holocaust (the women are not blood relations, the title refers symbolically to their Jewish heritage). Filmed in the 1970s, when Lanzmann was conducting extensive research for 1985's *Shoah*, *The Four Sisters* is an epic oral history made up entirely of survivor testimony with zero use of archive materials. Individual episodes run between 50-90 minutes, but each covers the painful topic and recurring theme of survivor's guilt.

Ruth Elias talks about her harrowing pregnancy and being one of Dr Josef Mengele's patients. Ada Lichtman, who poignantly holds a range of dolls laid out on a table during her chat – an initially perplexing detail until we learn about her work duties at Sobibór – describes terrifying drudgery. Paula Biren goes over the time she spent as a member of the shortlived Jewish police force in the Łódź ghetto. Hannah Morton was a passenger on the controversial

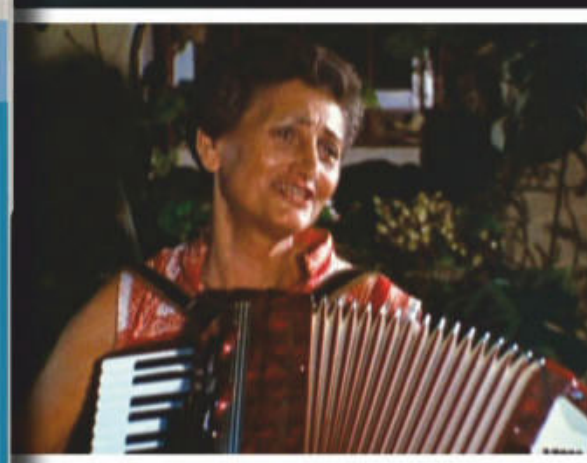
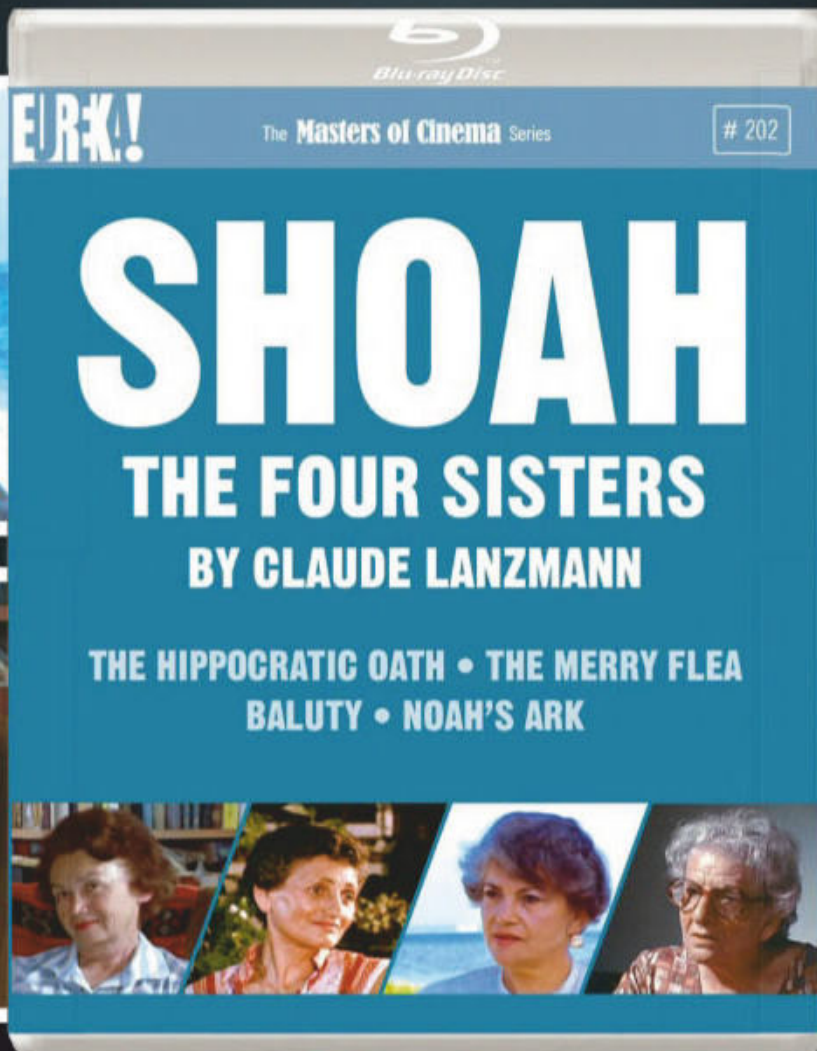
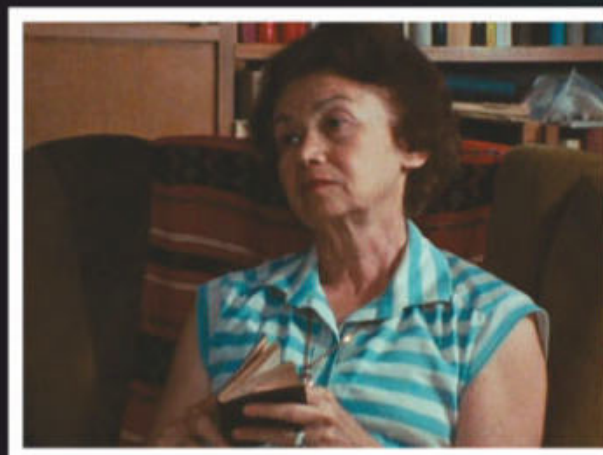
'Kasztner train' – a select group of largely wealthy Hungarian Jews who were (remarkably) able to buy their freedom from Adolf Eichmann and his underlings. The man who arranged this transport, Rezso Kasztner, was denounced as a collaborator and assassinated in 1957.

The four women interviewed lived through the nightmare. Help from others, resolve, luck and individual circumstance somehow got them through it, even during the most unbearable, darkest hours. Dehumanised, faced with a plethora of daily horrors, the constant threat of murder, thoughts of suicide, still they made the decision to carry on. Lanzmann does not blame or criticise them for acts of self-preservation. With great sympathy, he refers to this as "the tragedy of impossible choices".

Lanzmann is a masterful interviewer and an empathetic listener, with the talks skilfully edited. Each narrative leads the viewer (and the interviewee) to points of shattering revelation, but measured pacing is needed to get there. Perhaps this tactic – allowing

the interviewees to speak at length – is what produces the very palpable dread running through *Shoah: The Four Sisters*. Also, the director's canny use of medium shots and close-ups seeks and succeeds in registering the exact moment the interviewee begins to recall specific memories they find difficult to either articulate or discuss. There is a crucial change in facial expression, a visible discomfort, almost immediately a zombified look descends, stares harden, eyes scream at us in silent anguish. It is mostly evident in Ruth Elias and Paula Biren, whereas Hannah Morton appears to almost resent the director for penetrating her stoic armour, finally admitting the tears in her eyes are more than the result of a medical condition.

Claude Lanzmann's cinematic output has achieved monumental status precisely because, while archive footage of the concentration camps shows us the sickening results of our inhumanity, and valuable documentation and texts reveal the planning, means and sheer scale of industrialised slaughter, only survivors can explain what it felt like. **MC**





German soldiers  
grapple with the  
barrier at the Polish-  
German border, 1939

**"THE STORY IS TOLD FROM THE PERSPECTIVE  
OF CONTEMPORARY ACCOUNTS BY EXPATRIATE  
AMERICANS CAUGHT UP IN THE CONFLICT"**



# THE RISE OF THE THIRD REICH

THE NAZIS' INEXORABLE MARCH ACROSS EUROPE BETWEEN 1939-1941 IS VIEWED THROUGH THE EYES OF AMERICAN EXPATRIATES CAUGHT UP IN THE CONFLICT

**Author:** Robert Lyman **Publisher:** Amberley **Price:** £20

The years 1939-1941 witnessed Europe's march towards the greatest catastrophe of warfare the world has even known. Robert Lyman's well-documented history follows events from September 1939, when Britain and France declared war on Germany, to Pearl Harbor and the USA's declaration of war in December 1941.

The story is told from the perspective of contemporary accounts by expatriate Americans caught up in the conflict. This was a time when British and other nationalities were barred from Nazi-occupied territory, but US citizens could travel and report what they saw.

These reports tell of the foreboding, fear and suffering caused by the Nazi invasions, as European nations fell one after another to the German onslaught. We meet such high-profile personalities as the dancer and singer Josephine Baker, Sylvia Beach, owner of the landmark Parisian bookshop Shakespeare & Co., and the wealthy

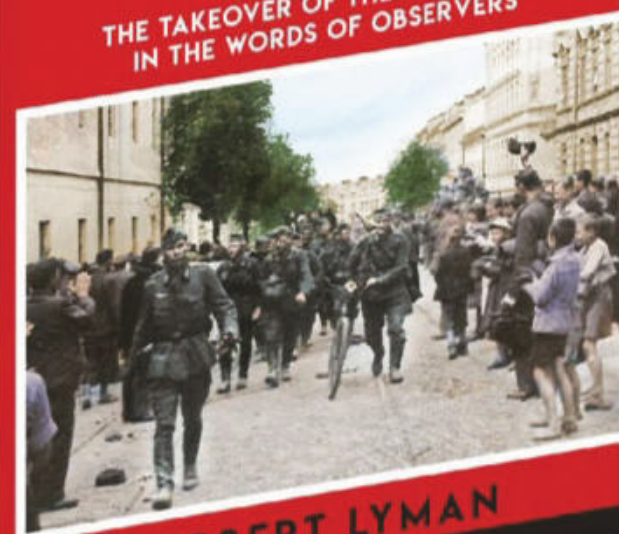
playboy Billy Fiske, who became the first American volunteer in the RAF to die in action during the Battle of Britain. The reader also encounters great names in media like the immortal wartime radio journalist Edward R. Murrow, Eric Sevareid, who reported on the fall of France, and William Shirer, who broadcast from Berlin from 1933-1940.

Women figure prominently. Radio reporter Drue Tartièrre (née Dorothy Blackman) spent the war years working for the French Resistance and helped almost 200 Allied servicemen to flee France. Dorothy Thompson was the first American journalist to be expelled from Nazi Germany, in 1934, and one of the few women news commentators on radio during the 1930s.

Lyman's skills as an entertaining storyteller and his erudition as a historian bring to life the experiences of those who experienced first-hand the early days of World War II. **JS**

## THE RISE *of the* THIRD REICH

THE TAKEOVER OF THE CONTINENT  
IN THE WORDS OF OBSERVERS



ROBERT LYMAN



# GREAT BATTLES: YPRES

YPRES, FOUGHT OVER IN EVERY YEAR OF WORLD WAR I, IS THOROUGHLY EXPLORED IN THIS TRANSNATIONAL INTERPRETATION OF WHAT OCCURRED AROUND THE BELGIAN TOWN

**Authors:** Mark Connelly and Stefan Goebel

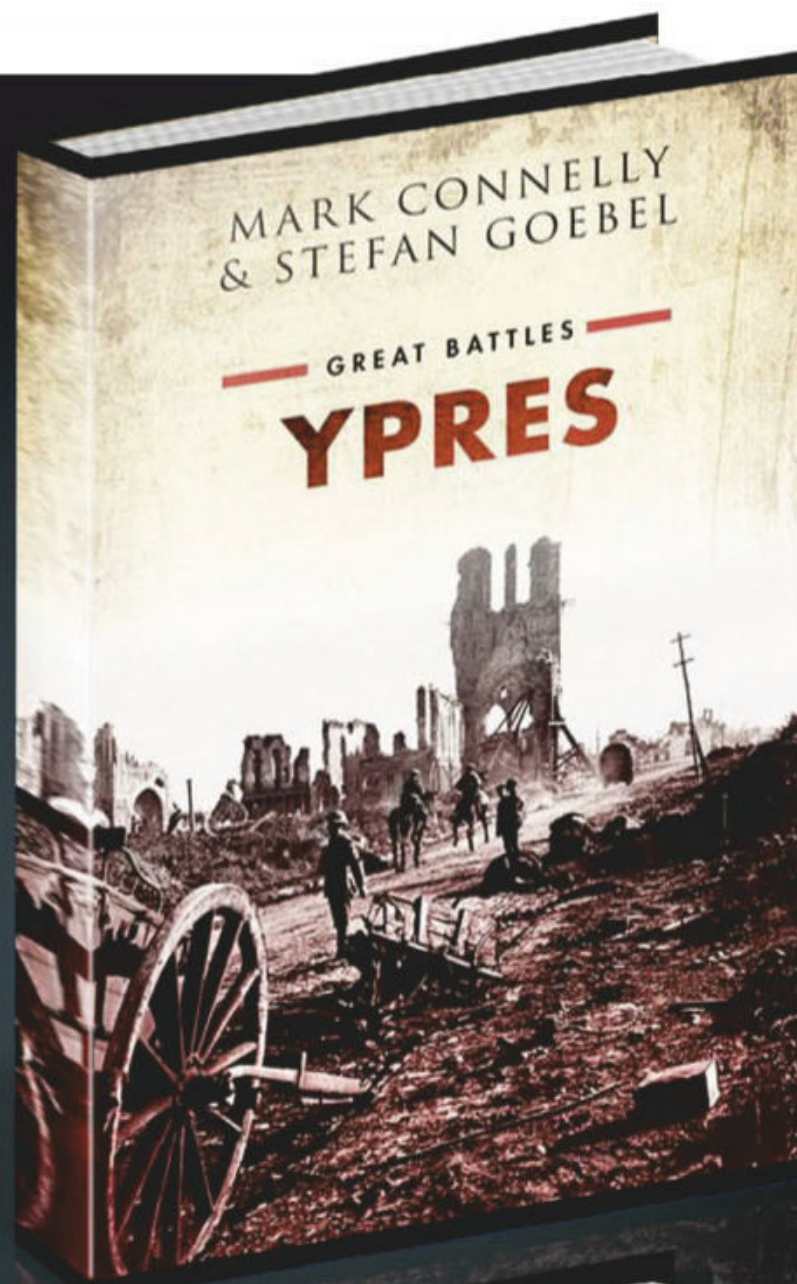
**Publisher:** Oxford University Press **Price:** £18.99

Within months of the outbreak of the Great War, Ypres witnessed the first of a series of devastating battles that endured until the end of hostilities in November 1918. The location marked the beginning of trench warfare in the salient, as opposing forces dug in around the line. The authors tell the story of how this sleepy Belgian town, admired for its Gothic architecture and renowned for its role as a World War I battleground, is understood and interpreted by the belligerents on both sides. In this sense, the book offers the first transnational interpretation of the meaning of Ypres and, by extension, the Western Front.

Ypres became the scene of some of the worst destruction of the war, and it gained an element of notoriety as the location for the first use of gas on the Western Front. Technically, there were five

great engagements, which makes Ypres different from other major battlefields like the Somme. Ypres and the region around it was fought over in every year of the war, making it a spreading, molten slick of violence.

The authors have placed their emphasis on producing a 'media' history – that is, a study of different types of evidence, from official documents, books and journals, including photographs, films and music. The intention is to reveal that commemoration of the Great War stretched well beyond formal commemoration activity. The book has been thoroughly researched from state archive material in six countries. The authors have also undertaken fieldwork in and around Ypres to understand its history and looming presence in the remembrance of war. **JS**



# BRISTOL SCOUT 1264 REBUILDING GRANDDAD'S AIRCRAFT

DAVID BREMNER TELLS THE INSPIRING  
STORY OF A TRUE LABOUR OF LOVE

**Author:** David Bremner **Publisher:** Fonthill **Price:** £25

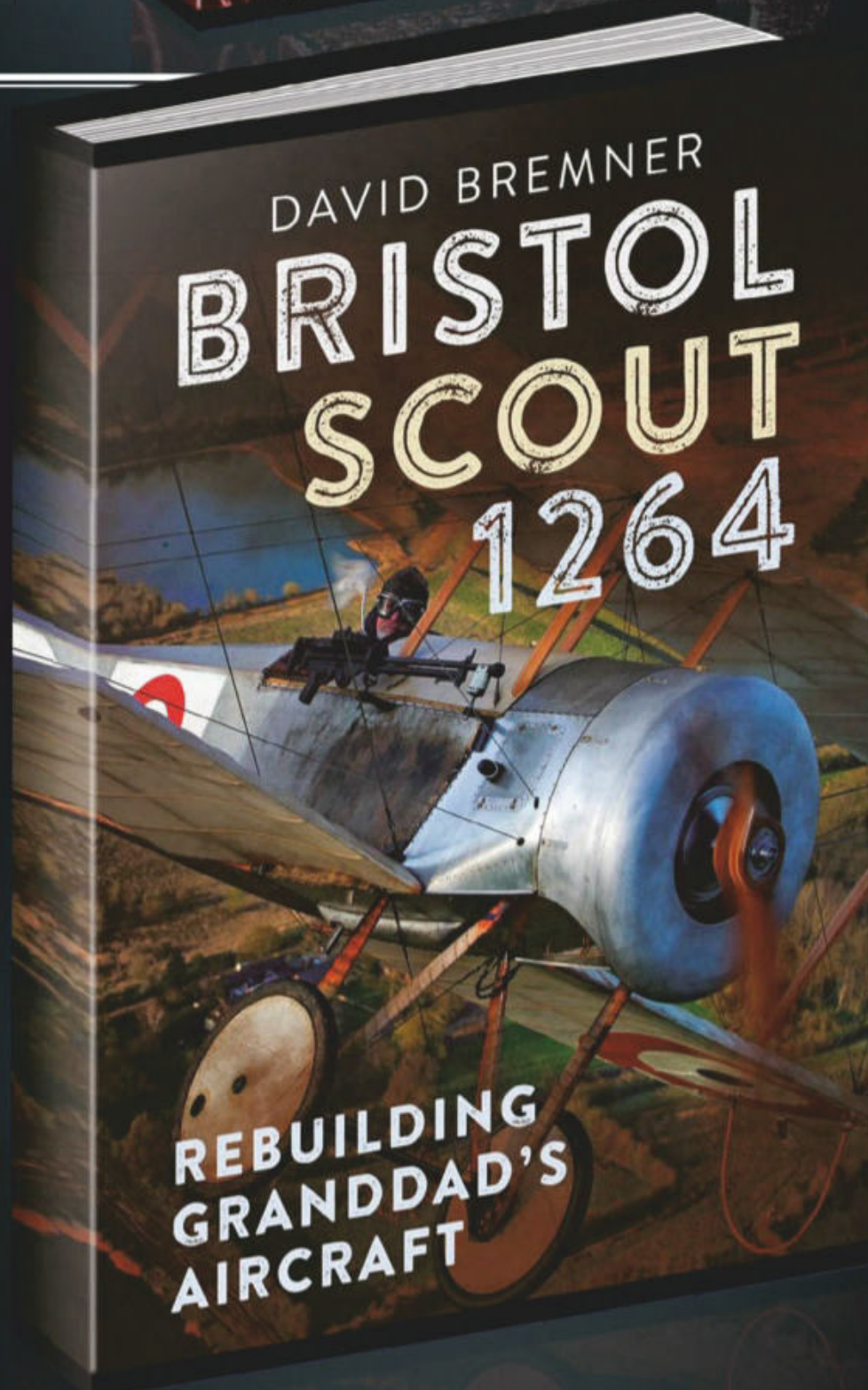
It takes a special kind of passion to build a reproduction World War I aircraft, and it also requires a little eccentricity to build a humble scout aircraft rather than one of the more glamorous fighter planes, but author David Bremner had his reasons. First of all, it was his grandfather (Frances Donald Holden 'Bunnie' Bremner) who had flown the Bristol Scout in the war. Secondly, it is recognised as one of the finest planes of the period.

Bremner has actually penned two stories, both of them engrossing, and has interweaved them effectively through the book. The stories follow both the invention and development of the Bristol Scout and the efforts to build a reproduction a century or so later.

Bremner's love for the plane was born while listening to his grandfather's tales of flying his 'Bristol Bullet' during the war. Originally confused by the name, as no such plane existed, Bremner later discovered that 'Bullet' was the nickname for the Scout, given in honour of its great speed and manoeuvrability. Among many distinctions, it was the first wheeled military aircraft to take off from an aircraft carrier.

Bremner's book will appeal mostly to aircraft enthusiasts, naturally, but the writing is engaging and there is plenty to interest the more casual reader too (the detective work needed to make the reproduction as authentic as possible is particularly intriguing). Accompanied by an excellent series of colour plates, this is a fitting homage to a rather special plane. **DS**

**"BREMNER'S LOVE FOR THE PLANE WAS BORN WHILE LISTENING TO HIS GRANDFATHER'S TALES OF FLYING"**





# ARCHDUKE FRANZ FERDINAND AND THE ERA OF ASSASSINATION

AN EYE-OPENING ACCOUNT OF A TIME WHEN IT WAS OPEN SEASON ON MONARCHS AND POLITICIANS

**Author:** Lisa Traynor **Publisher:** Royal Armouries **Price:** £14.99

The assassination of Archduke Franz Ferdinand, the spark that ignited World War I, is a familiar event – most people will know at least something about it. What most people will not know is that this was just one of a string of assassinations in a seemingly endless parade of knifings, bombings and shootings in which the upper echelons of society were picked off. Politicians, royalty and other notable figures in society were all fair game as anarchists, nihilists and nationalists sought to bring about radical change.

Lisa Traynor's fascinating book takes us into this period, which she dubs the "Era of Assassination". This is not mere hyperbole. Traynor points out that "in the late 19th century alone, assassins tried to kill almost every major European head of state".

Reading Traynor's account, it is difficult to see how a head of state of the time would dare to go out of his or her palace. The death toll is shocking; Alexander II of Russia (1881), French President Marie François Sadi Carnot (1894), Spanish Prime Minister Antonio Cánovas del

Castillo (1897), Russian Prime Minister Pyotr Stolypin (1911) being just a few. There were many other unsuccessful attempts as well, leading the crown prince of Prussia, Friedrich Wilhelm, to state, "Whenever I get out of my coach I wonder whether the shot will come from the right or the left."

Traynor's book is not merely an interesting and thought-provoking recounting of history. As befits a publication from the Royal Armouries, she also delves into the minutiae of assassination, examining the various tools of the trade in detail, accompanied by many excellent photographs of exhibits from the Royal Armouries' collection.

There is also the intriguing story of the 'bulletproof priest', Casimir Zeglen, who was moved to invent a bullet-resistant material to try and stop the slaughter. The story that Franz Ferdinand owned a bulletproof vest made by Zeglen, but that he wasn't wearing it when he was attacked, adds an extra layer to the story.

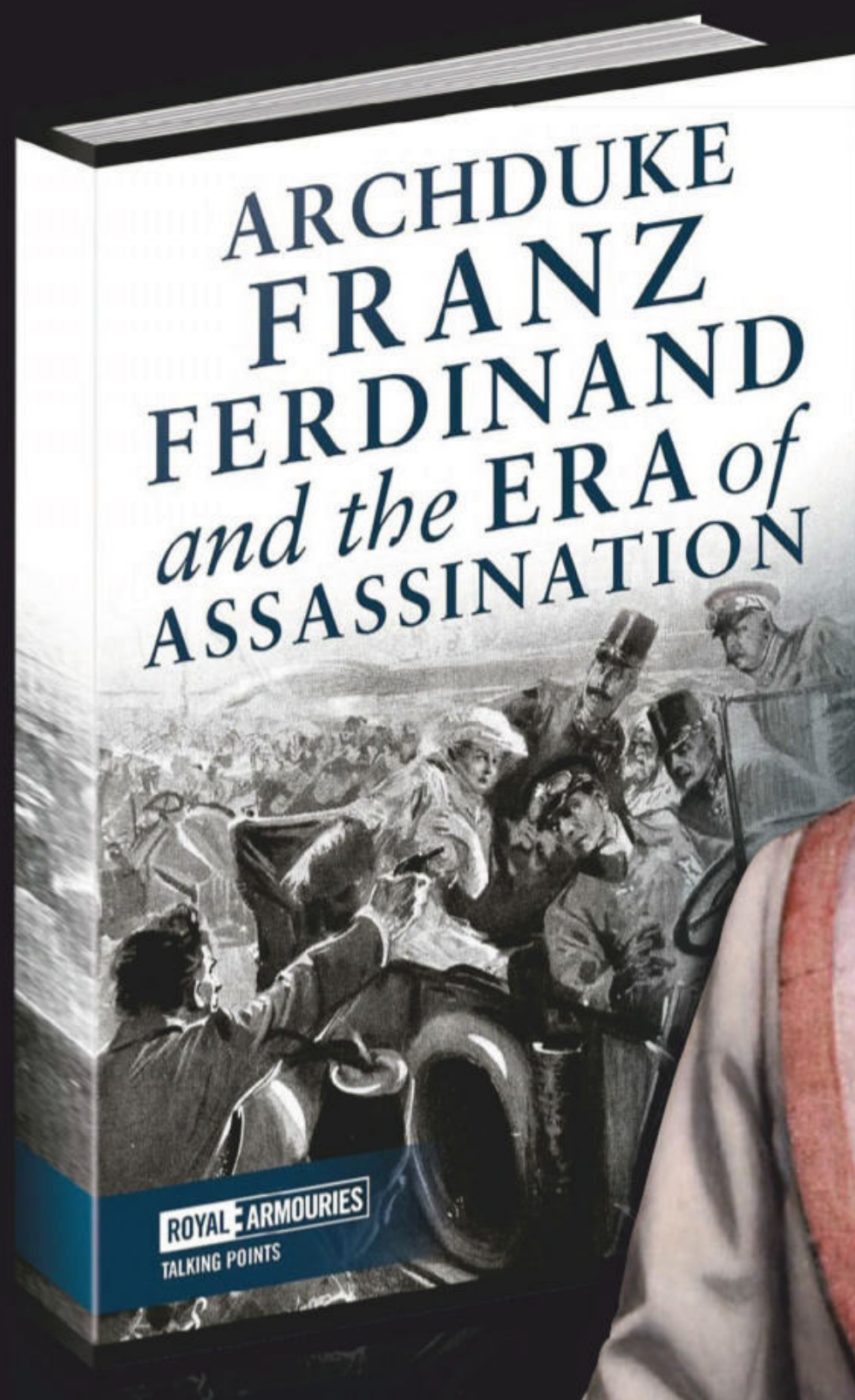
Traynor then steps out of historical narrative and into the realms of scientific experimentation, having a vest manufactured to Zeglen's specifications and seeing if it could have worked.

At this point the book changes dramatically in its approach, becoming more of an academic paper. It will be fascinating to many but will also be too much for the more casual reader. The tests undertaken to determine the effectiveness of the vest are complicated, and

a little confusion is introduced by the use of the word 'choreographed' rather than 'chronographed' when assessing the muzzle velocity of the pistols used in the experiments.

The result of the tests indicate that Ferdinand would not have been saved by one of Zeglen's vests. Although the material had the capability of stopping a bullet, the shot that killed the archduke would have missed it. Had the shot been a few centimetres lower... well, then history might have looked rather different. **DS**

*Franz Ferdinand's assassination was the spark that ignited WWI*





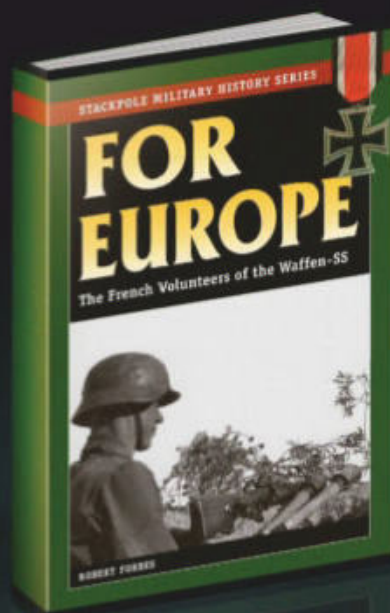
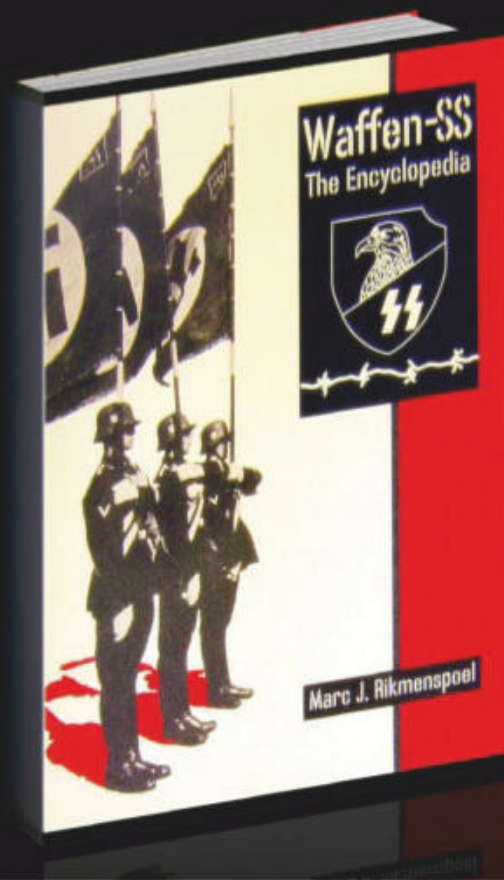
# FOREIGN WAFFEN-SS

These books will take you into the world of the hundreds of thousands of foreigners who fought for the Third Reich

## Waffen-SS Encyclopedia Marc J. Rikmenspoel

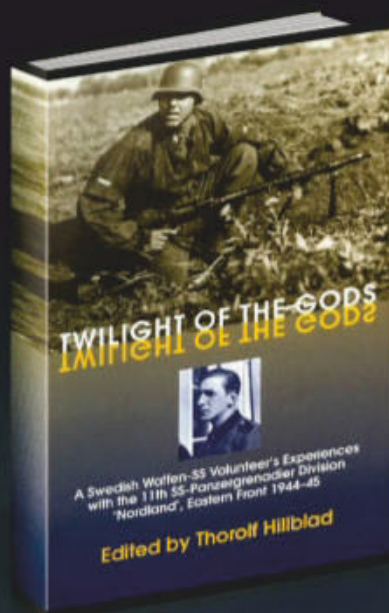
This book does exactly what it says on the tin; Rikmenspoel is an acknowledged expert on the Waffen-SS, and this work covers not only all the foreign Waffen-SS units but also the volunteers themselves by country and nationality. It has sections on the structure of the Waffen-SS, its weaponry and leading personalities, and is a great starting point.

**“THIS WORK COVERS NOT ONLY ALL THE FOREIGN WAFFEN-SS UNITS BUT ALSO THE VOLUNTEERS THEMSELVES BY COUNTRY AND NATIONALITY”**



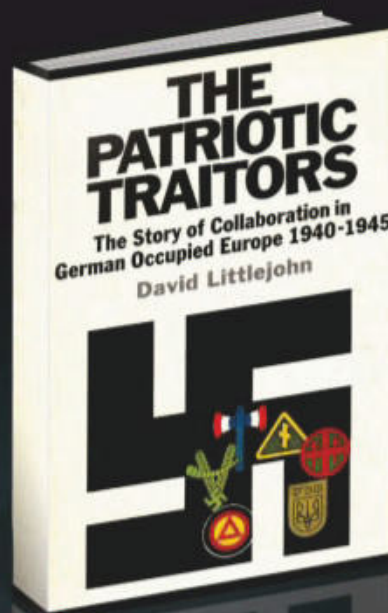
### For Europe Robert Forbes

Forbes is one of the foremost experts on the French volunteers in the Waffen-SS, and his book *For Europe* is the English-language standard-bearer for the subject, exploring in detail the volunteers and the battles they participated in. First self-published in 2000, only 500 copies were initially produced, though it has since been republished several times.



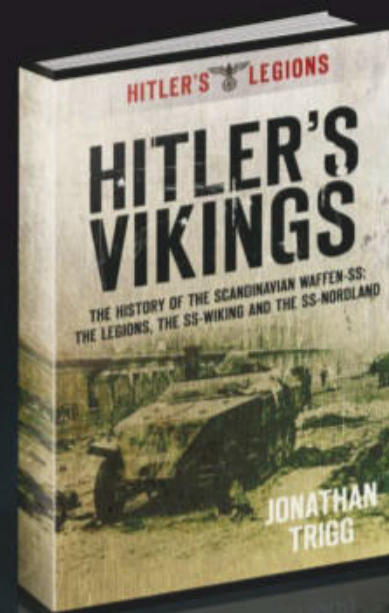
### Twilight Of The Gods Thorolf Hillblad

Hillblad was a volunteer Swedish reporter in the Waffen-SS during the war. After the war he ghost-wrote Erik Wallin's memories of the 1945 Berlin battle. Wallin was another Swedish Waffen-SS volunteer. Published not long after the war ended, it glorifies the Waffen-SS, but if you can see past that it is a fascinating first-hand account of the final days of the Third Reich.



### The Patriotic Traitors David Littlejohn

Littlejohn served in the war before returning to the UK and becoming a librarian. While serving he came across Belgian fascist collaborators first-hand, and that sparked his interest in the foreign Waffen-SS. Covering every European country, their neo-Nazi organisations and volunteers, this book has a strong claim to be the granddaddy of them all.



### Hitler's Vikings Jonathan Trigg

The third in the 'Hitler's Legions' series, this volume describes all the various units and formations of the Waffen-SS volunteers that originated from Norway, Denmark, Sweden and Finland, including their most famous battles, what motivated the men to volunteer, and those of its members who earned the Knight's Cross for bravery during World War II.



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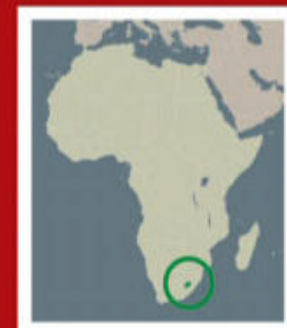
### THE LESOTHO SPITFIRE

The contribution of Commonwealth nations in the fight against the Axis is today rightly recognised far more than in previous decades. However, a perhaps less glamorous but nonetheless vital part of this contribution was financial.

Among the largest donors to Britain's cause during WWII was the small Kingdom of Basutoland (now Lesotho), in southern Africa. Despite its small size, with a population of just over 400,000 at the time, the country directly financed 24 Spitfires – planes that helped defend Britain's skies during 1940 and beyond.

As thanks for this extraordinary gift, in 2016 the Spitfire Heritage Trust donated a full replica of the iconic aircraft to the nation of Lesotho. This is just one of the projects the Spitfire Heritage Trust has organised as part of its work to educate future generations about these incredible aircraft.

For more information about the work of the Spitfire Heritage Trust please visit [www.spitfireheritagetrust.com](http://www.spitfireheritagetrust.com)



**History of War readers have the exclusive chance to win two bottles & a commemorative pin from Spitfire Heritage Distillers**

**T**his issue, History of War readers have the chance to win a bottle each of Spitfire Gin and Supermarine Vodka, created by British company Spitfire Heritage Distillers. Concocted by award-winning distiller John Walters, Spitfire Gin is made with two types of orange, almonds, borage, coriander, rosemary, star anise and rose petals. As well as these two quality bottles to enjoy responsibly, one lucky winner will also receive a commemorative, 22-carat-gold-plate Spitfire Heritage pin, making a fantastic total prize value of £100.

For your chance to win, please visit [www.historyanswers.co.uk](http://www.historyanswers.co.uk) – you will need to be 18 years or older and a UK resident to be eligible. If you are not yet a subscriber to the magazine, there are some fantastic print and digital deals available online at [www.myfavouritemagazines.co.uk](http://www.myfavouritemagazines.co.uk), where you can save money on the cover price.

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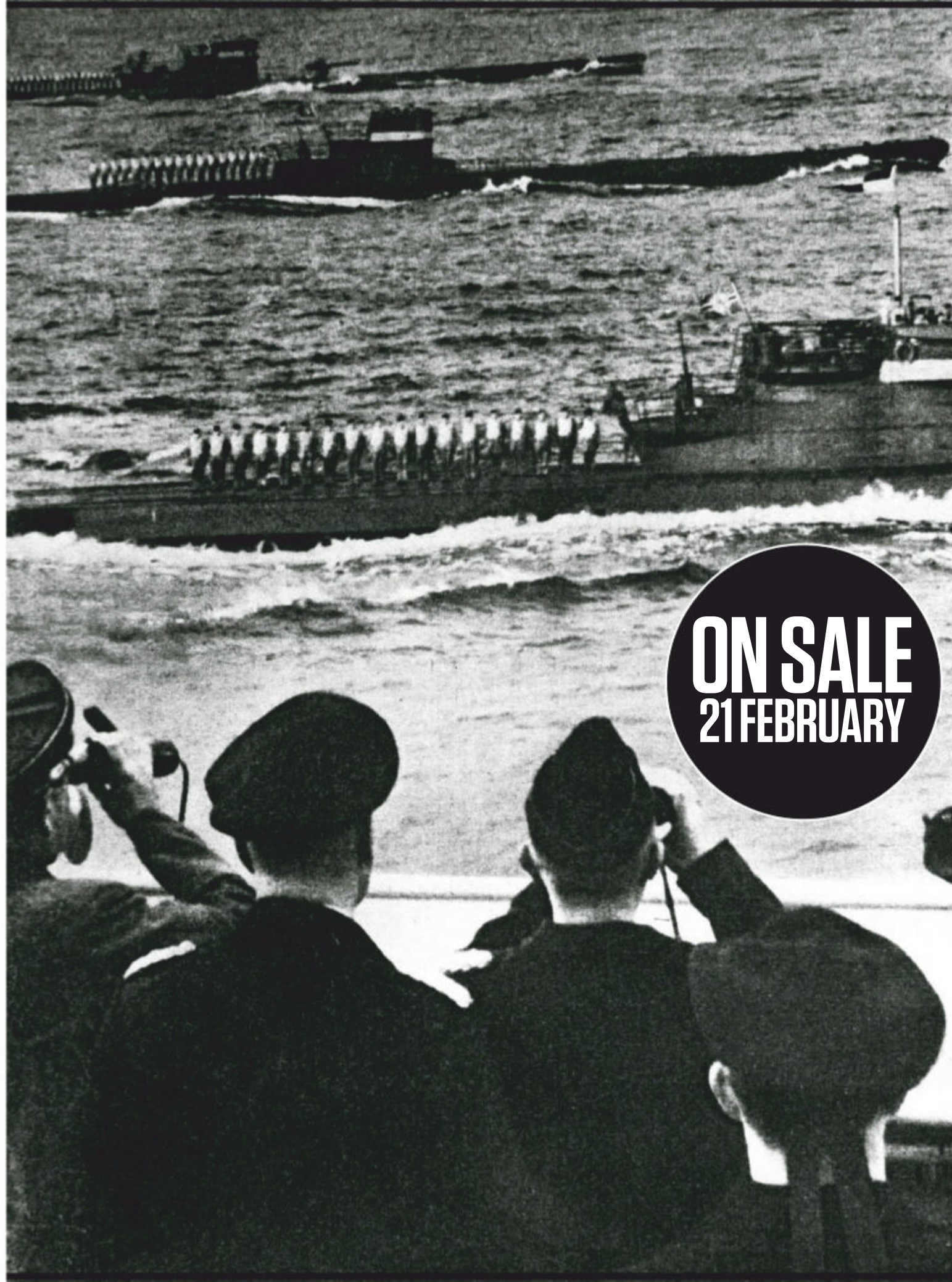


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# COPPERGATE HELMET

Discovered in York, this spectacular artefact is the best-preserved surviving headpiece from Anglo-Saxon England

**I**n May 1982, the Dark Ages dramatically returned to the light when a mechanical digger struck an object below the soil during an excavation in York. This transpired to be an intact Anglo-Saxon helmet, which was discovered in a wood-lined pit containing fragments of antler, stone, glass and iron.

Dated to the late 8th century CE, the headpiece is made of iron and copper alloy and is an outstanding example of early English craftsmanship. The helmet is stylistically Northumbrian, and the detail of the nose guard depicts animals entwined in an intricate pattern. The crest has a Latin inscription that states, "In the name of our Lord Jesus Christ, the Holy Spirit and God; and to all we say amen. Oshmere".

The helmet was clearly a prized possession and a status symbol for its owner. 'Oshmere' was almost certainly a nobleman who was possibly a member of the Northumbrian royal family. In the late 8th century Northumbria was an independent English kingdom, but it was under intensely violent pressure from increasing Viking invasions.

Between 758-867, every known Northumbrian king had been murdered, killed in battle or exiled, and York itself changed hands twice between 866-67. It is reckoned that the owner of the helmet hid it in the pit with the unrealised intention of recovering it later. There were no signs that it was deposited as a ritual offering, which suggests that it was hidden in haste. Given the volatile state of 8th-century York, it is not unlikely that violent warfare was the cause of its burial.



**"BETWEEN 758-867, EVERY  
KNOWN NORTHUMBRIAN KING  
HAD BEEN MURDERED, KILLED  
IN BATTLE OR EXILED"**



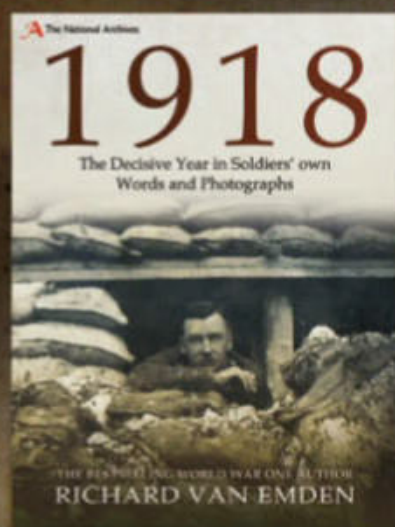
*A Pictish standing stone depicts Northumbrian cavalry (right) wearing headpieces similar to the Coppergate Helmet*

*The Coppergate Helmet is one of six known surviving Anglo-Saxon helmets and is by far the most intact. It is even better preserved than the iconic Sutton Hoo Helmet*

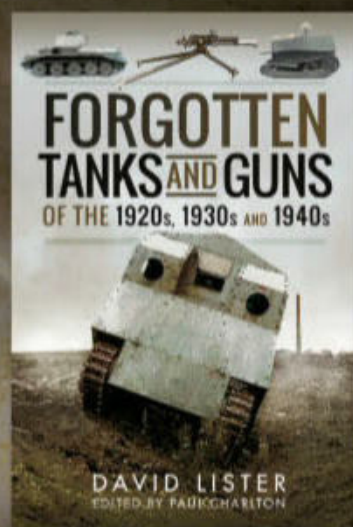


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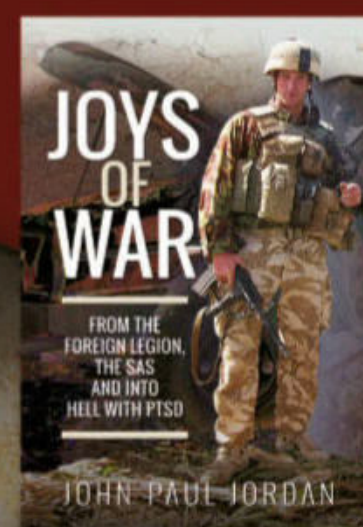
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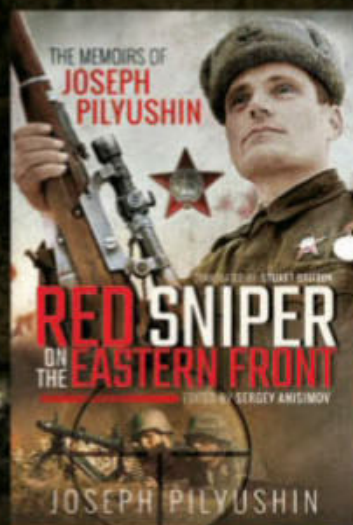
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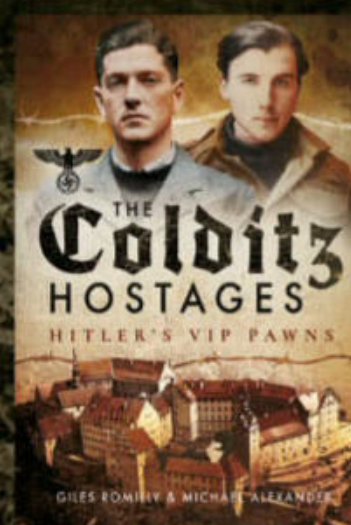
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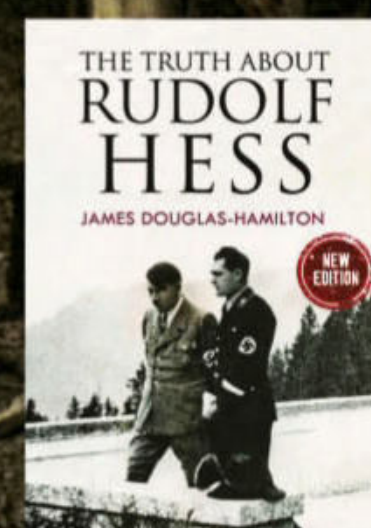
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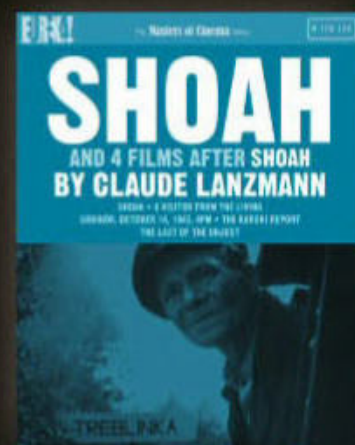
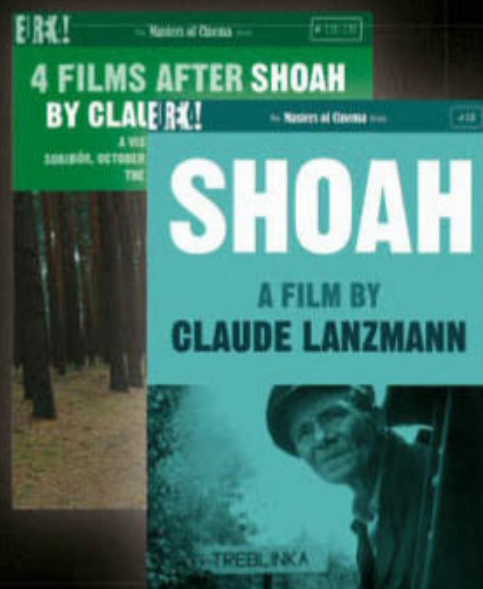
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